2009 PRODUCT CATALOG

MEADE®

WWW.MEADE.COM

TABLE OF CONTENTS

TELESCOPE SECTIONS

ETX® Series	2
LightBridge™ (Truss-Tube Dobsonians)	20
LXD75™ Series	30
LX90-ACF™ Series	50
LX200-ACF™ Series	62
LX400-ACF™ Series	78
Max Mount™	88
Series 5000™ ED APO Refractors	100
A and DS-2000 Series	108

EXHIBITS

1 - AutoStar®	13
2 - AutoAlign™ with SmartFinder™	15
3 - Optical Systems	45
4 - Aperture	57
5 - UHTC™	68
6 - Slew Speed	69
7 - AutoStar® II	86
8 - Oversized Primary Mirrors	87
9 - Advanced Pointing and Tracking	92
10 - Electronic Focus and Collimation	93

ACCESSORIES

Imagers (LPI,™ DSI, DSI II)	116
Series 5000™ Eyepieces	130
Series 4000™ Eyepieces	132
Series 4000™ Filters	134
Accessory Kits	136
Imaging Accessories	138
Miscellaneous Accessories	140

Meade Optical Advantage	128
Meade 4M Community	124
Astrophotography Index/Information	145

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.01 RECRUIT
Starting out right

.02 ENTHUSIAST
Going big on a budget

.03 HOT SHOT
Budding astrophotographer

.04 FANATIC
Going deeper

.05 MASTER
Dedicated astronomer

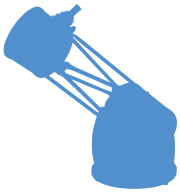
.06 GURU
Expert astronomer

.07 SPECIALIST
Wide field views & images

.08 ECONOMIST
On a budget

.01 ETX®

PG. 2-19



.02 LIGHTBRIDGE™

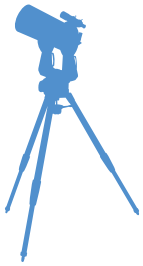
PG. 20-29

.03 LXD75™

PG.30-43

.04 LX90-ACF™

PG. 50-61



.05 LX200-ACF™

PG. 62-76

.06 LX400-ACF™

PG. 78-99

.07 SERIES 5000™ ED APO

PG. 100-105

.08 A/DS™-2000 SERIES

PG. 108-115

FIND YOURSELF

Astronomy is for everyone. That's not to say everyone will become a serious comet hunter or astrophotographer. But just like life would be empty without music, something is missing if you have yet to discover your place in the universe. If the starry sky is nothing more than a ceiling of random twinkling lights to you, you're missing out on the real thing: a treasure map of stars, clusters, nebulas and galaxies, some of which you can see with your naked eye. Through a telescope, these celestial neighbors become awe-inspiring food for the soul. That's why astronomy so often becomes a lifelong passion. Whether you choose to join those on a journey of discovery that never ends, or just take the occasional "stroll" around our cosmic neighborhood, the point is, there are wonderful things up there that help you find yourself. And a telescope will help you see them.

FIND YOURSELF

Finding the right telescope has never been easy. We once asked a salesperson at a retail store which scope to buy and got this reply, "I think the ones with the eyepiece thing sticking out the back are better." But ignorance isn't the only cause for confusion. The truth is, telescopes are confusing. Lifelong astronomers (for whom much of this catalog is intended) know enough about focal ratios, apertures, polar alignment, and the competing virtues of Advanced Coma-Free vs Schmidt-Cassegrain designs to truly boggle the mind. So here's the deal: If you're a serious astronomer, feel free to jump straight to the technical details you crave. They are included throughout the catalog in all their glory. But if, for whatever reason, you are looking for guidance, start by finding yourself (or the astronomy profile that comes the closest to describing you). When you do, you'll find your telescope. Easy.

.01 RECRUIT ETX® SERIES

Considered the telescope that "revolutionized amateur astronomy" by Sky & Telescope magazine.

Tony Pappas: *Electrician, hunter, ETX-125 owner.*

Level: *Just starting out.*

Mindset:
I want a "real" telescope that will give me an awe-inspiring first few nights and grow with me for years to come. (Or a second scope that takes my hobby to a new level).

Mantra:
No toys (I bought a cheap telescope once and boy was I sorry).

Priorities:
Fun, easy, cool, exciting. Compact enough to take camping, RVing, traveling.

Goals:
See Saturn's rings, Jupiter's moons, galaxies, nebulas, clusters and lunar details.

Also used by: Fanatic, Master, and Guru. ⏩

Performance:

Ideal all-around scope.
View both Earth and sky objects. Observe visually or take your first astrophotographs.

Optical Design:

Maksutov-Cassegrain or ETX-80 Refractor. (See pg. 16)

Strengths:

Easy-to-use AutoStar® controller finds and tracks things for you.
Solid mount and razor sharp optics—all in a portable package.

Buzz:

Sky & Telescope magazine said of the ETX, "Now anyone can play the backyard-astronomy game cheaply and without fear of frustration."

.04 FANATIC

.05 MASTER

.06 GURU

.01

ASTRONOMY IS FOR EVERYONE. So is the ETX.

ETX® SERIES ETX-PE

ETX-80

Tripod carrying case included.

"In one brilliant stroke, Meade's brainy ETX system has erased the learning curve."

— Sky & Telescope magazine

"In a matter of minutes, I could see two or three dozen objects in rapid succession, finding them effortlessly..."

— Astronomy magazine

"Suddenly there is no excuse for anyone with even the slightest interest in astronomy not to become a participant."

— Sky & Telescope magazine

When Meade first introduced the ETX® (short for Everyone's Telescope), astronomers "in the know" created such overwhelming demand that the scopes were almost impossible to get. Several years later, those new to astronomy are just beginning to discover the ETX while serious astronomers still flock to it as the ideal ultra-portable scope in their collection.

With optics that rival the most expensive telescopes, computerized star-finding capabilities, and a rock-solid mount, the ETX is a no-brainer for the best possible entry-level astronomy experience. Comes ready-to-stargaze with all you see here:

Premium Meade Diffraction-Limited Optics. Beware of cheap knock-offs with chromatic aberration, astigmatism, and other terms you may not have learned yet. Meade optics have led the industry for twenty years. You get what you pay for. Sky & Telescope wrote, "I could see every wisp of velvet on the antlers of a deer 50 feet away" and, "Views of the moon and planets were all satisfyingly crisp." Corrector lens is made of premium BK7 Glass. **A.**

Maksutov-Cassegrain optical design. This optical design outperforms many telescopes of larger apertures. Sky & Telescope said, "(ETX) stellar diffraction patterns were virtually textbook perfect." Compound optical design packs a lot of telescope in a small and portable package (see pg. 49). **B.**

Oversized Primary Mirror. Only Meade manufactures primary mirrors larger than the scope's listed aperture to capture more light (see pg. 87). **C.**

Flip-Mirror System. Permits viewing either straight through or at a 90° position. Allows camera attachment with optional T-adapter (pg. 138). 90° diagonal mirror and 26mm Series 4000™ Super Plössl eyepiece included. **D.**

Motorized Dual-Axis Drive System. Precisely engineered high-torque motors permit electronic operation in either altazimuth or equatorial mode. Nine different speeds for slow-motion control. **E.**

Deluxe Field Tripod. Rock-solid yet lightweight, this adjustable, rigid tripod is the ideal platform for any application of your ETX from daytime observing to beginning astrophotography. It is fully adjustable to match any height adult or child. Works in either altazimuth or equatorial mode. **F.**

Deluxe AutoStar® controller. The heart of the ETX computer-guided telescope finds things in the night sky for you (see pg. 13). **G.**

AutoStar Suite™ Software/Training DVD. New Astronomer Edition planetarium software helps you learn the night sky. You can also use the software to control your ETX-PE from your PC (Windows® compatible). For those who don't read instructions (you know who you are), our training DVD walks you step-by-step through the set-up and use of your telescope. Training DVD also available free at meade.com/support. **H.**

26mm Series 4000™ Eyepiece. Wide field of view makes stargazing easy. Quality optics yield sharp, high-contrast images. **I.**

UHTC.™ Our exotic multi-layer optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on scope size). Objects appear dramatically brighter (see pg. 68). **J.**

AutoAlign™ with SmartFinder™. Easy red dot finder with automatic alignment (see pg. 15). **K.**

ETX-PE

ETX-90PE #3514-03-55	ETX-125PE #0515-03-55
90mm (3.5") aperture	127mm (5") aperture
Maksutov-Cassegrain	Maksutov-Cassegrain
f/13.8 focal ratio (1250mm)	f/15 focal ratio (1900mm)
#497 AutoStar (30,000+ object database)	#497 AutoStar (30,000+ object database)
SmartFinder red dot with LNT module	SmartFinder red dot with LNT module
26mm Series 4000 Super Plössl eyepiece	26mm Series 4000 Super Plössl eyepiece
UHTC™ Optical Coatings included	UHTC™ Optical Coatings included
7.8 lbs net weight, less tripod	15.2 lbs net weight, less tripod
15" x 7.3" x 8.5"	19" x 8.9" x 10.8"
8 AA batteries (user supplied)	8 AA batteries (user supplied)
Slew Speed: 2x sidereal to 4.5°/sec in 9 increments	Slew Speed: 2x sidereal to 4.5°/sec in 9 increments
Guide Speed: 2x sidereal	Guide Speed: 2x sidereal

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.

ETX-80

ETX-80AT #0805-04-21
80mm (3.15") aperture
Achromatic Refractor
f/5 focal ratio (400mm)
#494 AutoStar (1400 object database)
9.7 mm, 26mm Series 4000 Super Plössls
Multi-Coated Optics
6.7 lbs net weight, less tripod
5.9" x 7" x 9"
6 AA batteries (user supplied)
Slew Speed: 2x sidereal to 4.5°/sec in 9 increments

The Mighty ETX

More than a telescope. It's a community.

Google™ Meade ETX and you're sure to run into Mike Weasner's Mighty ETX Website. There you'll find a group of ETX enthusiasts who are as into their ETXs as some people are into their cars or computers. By sharing tips and techniques, these people have discovered that the ETX is mighty indeed. In Mike's words, "These telescopes can do amazing things. They are little telescopes that act like much bigger ones."

Choosing an ETX® is easy.

You'll understand more about the various types and sizes of telescopes as your knowledge of astronomy increases (see optical systems, pg. 45). But instead of worrying how to pronounce Maksutov-Cassegrain, rest assured that there's not a telescope on the market with a better track record of converting budding astronomers into full-fledged ones than the ETX. Sky & Telescope magazine predicted the ETX would "grow the hobby in a way heretofore unimagined." And so far, it has. Once you decide on the ETX, you need to choose the aperture that best suits your needs (see p.57). In general terms, you will want all the aperture you can afford. But aperture isn't everything. For outrageously simple portability, you can't beat a 90mm ETX-PE.

Aperture. Gather all the light you can.

You can find a more detailed definition of aperture on page 57. But for most ETX owners, it is enough to know that aperture (diameter of the telescope opening) affects how much light your telescope can gather. The bigger the aperture, the brighter the image. Any serious astronomer will tell you aperture is significantly more important than magnifying power. Magnify a faint image and you get a big faint image. Magnify a bright image and you get a big, bright image. It's that simple. An ETX-125 has twice the light-collecting area of an ETX-90. So buy as much light as you can afford. And know that the ETX-90, with its generous 3.5" of aperture will show you more in one night than Galileo saw in a lifetime.

UHTC™ coatings. The "other" way to see the light.

Aperture isn't the only thing that affects light gathering ability. Meade's proprietary Ultra-High Transmission (UHTC) lens coatings (see pg. 68) are an amazing scientific breakthrough that increases brightness (light transmission) by the equivalent of up to nearly an inch of aperture (depending on telescope model).

Which AutoStar® controller?

This is mostly a question of what you can afford. The ETX-80 comes with our Basic AutoStar controller (#494). It gives you the same object-finding capability of our Deluxe AutoStar controller (#497) but with a smaller object database. Its collection of over 1,400 night sky wonders will keep you busy for a very long time. All ETX Premier Edition models include the Deluxe AutoStar controller #497 (see pg. 13) which includes a database of over 30,000 objects.

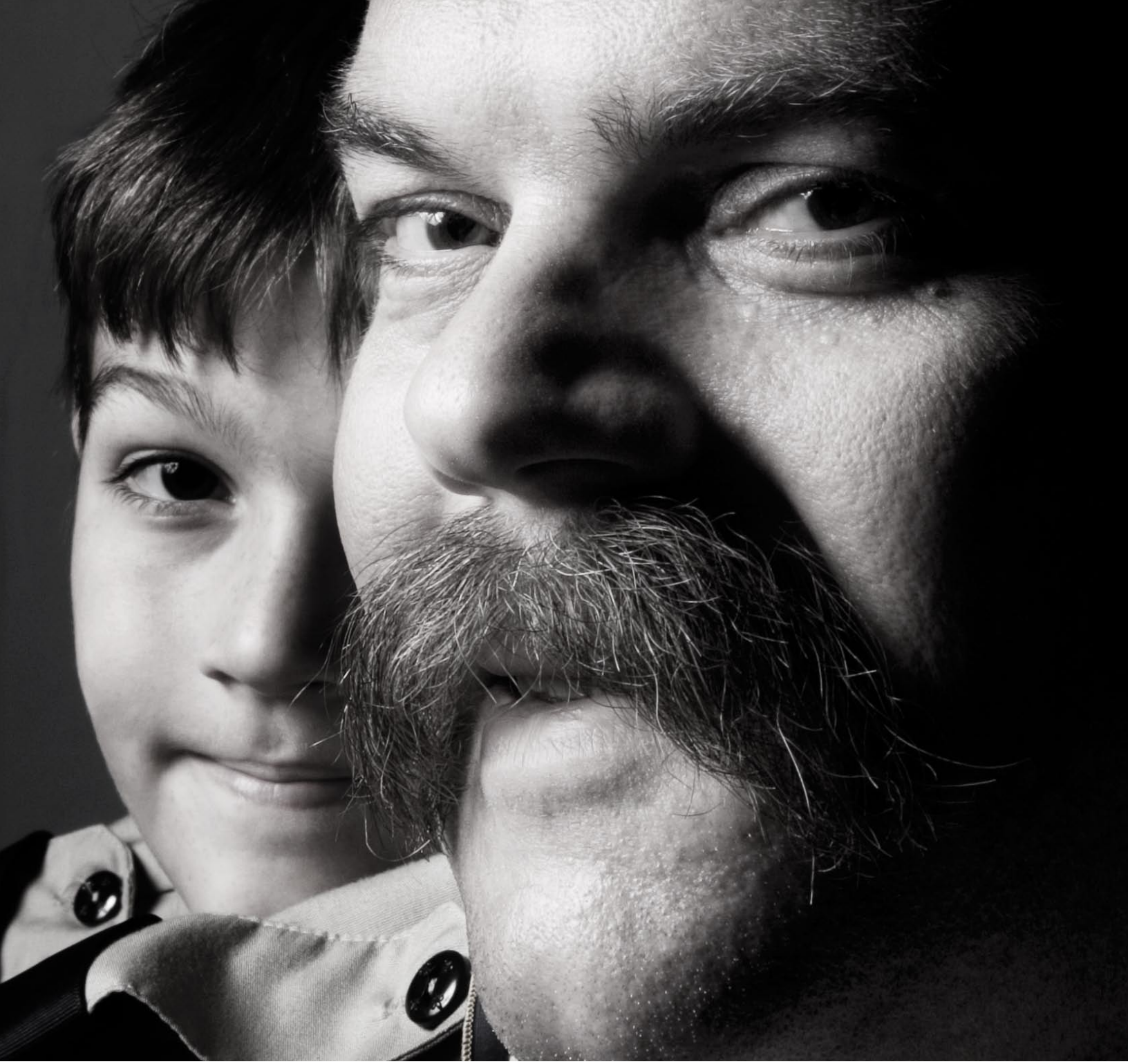
Adding on to your ETX:

While your ETX comes with everything you need to get started, it can also grow with you. Additional eyepieces will give you more magnification power and/or expand your field of view. Filters can reduce the effects of city lights or bring out details of planets, the moon, and nebulas. See these and more in the accessories section (see pgs. 130-145).

“By the end of the night, a few parents had earned their astronomy belt loops too.”

Joel Christensen - Gretna, Nebraska

When I told my Cub Scouts we were going to do some stargazing, they weren't exactly overjoyed. And who can blame them? Since many of them had tried in vain to focus on the moon with a toy telescope, their expectations were fairly low. .....



Reaction from the parents was similar. But they agreed to drag the boys out to a star party as long as there was a scouting award attached. Anything for a belt loop. We held our event at a pack member's home just outside of Gretna, Nebraska. They had dark skies and four acres of space. That allowed us to have a bon fire (well away from the telescopes of course) and refreshments. No one expected they would want to spend the entire night at the eyepiece.

All of that changed when I got out my Meade ETX telescope and focused on the moon. Once the kids saw the mountains, ridges and craters of the moon that are clearly visible through a quality telescope, their cries of excitement began to draw curious parents across the field for a look.

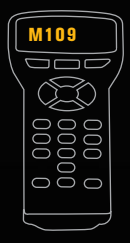
With a crowd gathering, we went to the next brightest object in the sky (I had no idea what it was) and asked the ETX's AutoStar controller to identify it. We soon discovered we were looking at Jupiter.

Now, I'm one of those guys who bring real meaning to the term "amateur" astronomer. But by this time I had about 30 boys and their parents eating out of the palm of my hand. I was fielding all kinds of questions like: How far? How big? How bright? How come? By the time we got to Saturn, so many parents were in line for a look that I had to politely remind them to give the boys a chance.

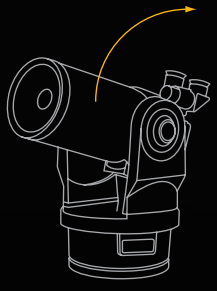
Late that night when the party finally died down, every boy in the pack had earned his astronomy belt loop. But a few of them had earned something much more: A lifetime love of the night sky.

.01
ETX®
SERIES

Just because a galaxy
may be billions of years old,
doesn't mean it should take
that long to find it.



Select galaxy.



Watch your telescope find and track the galaxy for you.

See galaxy.

ASTROPHOTOGRAPHY: MARK SIBOLE / M109-SPIRAL GALAXY / ETX-125

AUTOSTAR FINDS THINGS FOR YOU.

The universe is full of wonders. But what if you don't have the slightest clue how to find them? No problem. Just let a Meade AutoStar computer-guided telescope find them for you. Want to see a hard-to-find deep space galaxy? Push a button. The same goes for planets, stars, nebulas and more. Just pick the object you want to see, press GoTo, and AutoStar will put the object right in your eyepiece automatically. You'll discover whole new worlds you never knew existed. All you need is a clear night, a dark sky, and a little curiosity.

Deluxe AutoStar #497
Over 30,000 objects

Basic AutoStar #494
1,400 objects

"But I don't even know what there is to see."

Don't worry. Select the "Tonight's Best™" tour and AutoStar will automatically select the best objects in the sky for your current time and location and take you on a guided tour. But AutoStar does more than find things for you. It also has a built-in encyclopedia that can teach you about the objects you are viewing with scrolling details about distance, mass, chemical makeup, history, and prominent features. AutoStar's 30,000 object database (1,400 with Basic AutoStar #494) makes the night sky come alive.

AutoStar grows with you.

AutoStar Update lets you connect to the internet to download new software versions (#497 only), special guided tours, and timely objects like satellites and comets right to your AutoStar controller. All for free. You can also learn to create and download personalized tours of your favorite objects. So your AutoStar will get better and better with no added investment but your time.

Keeps objects in the eyepiece.

With a manual telescope, the earth's rotation causes objects to move quickly out of your field of view. Not with AutoStar. It tracks objects automatically, keeping them dead center in your eyepiece for viewing or astrophotography.

Deluxe AutoStar Objects

OBJECTS	SOURCE
5,386	Galaxies, nebulas, and star clusters. The complete Index Catalog (IC).
7,840	Galaxies, nebulas, and star clusters. The complete New General Catalog (NGC).
109	Best objects for small telescopes from the Caldwell Catalog.
110	Messier objects. The complete Messier catalog.
16,800	Stars from the Smithsonian Astrophysical Observatory (SAO) catalog. Including double stars, variable stars, and other stars of special note.
50	Earth-orbiting satellites.
26	Bright asteroids.
15	Visible periodic comets.
9	Moon and planets. All the major ones from Mercury to dwarf planet Pluto.

Your push-button guide to the universe.

You can see more in one night with AutoStar than the average beginner will see in a lifetime without it. From the breathtaking rings of Saturn to lesser-known objects like the Ring Nebula in Lyra or the Spiral Galaxy in Triangulum, AutoStar shatters the learning curve and makes astronomy fun for everyone.

On every gadget lover's wish list.

Computers and telescopes are a match made in heaven. If you're someone who must have the latest cell phone, digital camera, GPS device, or MP3 player, but have yet to experience the magic of computer-guided astronomy, we expect to hear from you soon.

AUTOMATIC ALIGNMENT™ The ETX® Premier Edition Advantage

The totally plug-and-play ETX Premier Edition.

The telescope that made astronomy easier for everyone is now even more user-friendly. AutoAlign (see next page) makes set-up and alignment of the ETX Premier Edition virtually a no-brainer. Just enter your city or ZIP Code and you are good to go. Meade's patented AutoAlign™ Technology will automatically align your telescope and find two fine-tuning stars for you. Once aligned, simply push the GoTo button to see your choice of over 30,000 objects in the night sky.

What is alignment anyway?

To give you a guided tour of the universe, your telescope needs to know its bearings. Things like location, time, and date all affect where heavenly objects can be found at any given moment. Alignment is simply a way to synchronize your telescope with the night sky. Meade has patented the simplest, and most effective alignment procedure in the world. It has yet to be copied or improved upon. There are other alignment methods out there, but you are likely to find them either more difficult, or less effective. All ETX Premier Edition AutoStar® scopes feature Meade's AutoAlign alignment procedure. Scopes with AutoAlign are smart scopes that perform this simple procedure for you automatically.

AUTOALIGN™ WITH SMARTFINDER™ MEANS THE ETX PREMIER EDITION CAN VIRTUALLY ALIGN ITSELF WITH THE UNIVERSE.

"Inspired by top-secret WWII bombsight technology, the red-dot viewfinder makes hitting targets easy."
– Ken Baun, Former Sr. Vice President, Meade Engineering

TURN IT ON AND IT KNOWS THE NIGHT SKY.

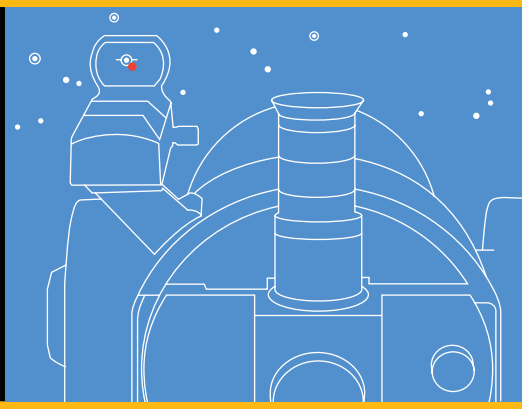
Alignment doesn't get any easier.

Just enter your point of departure to embark on a tour of the universe. Meade introduces what everyone's been waiting for: automatic alignment. There's no time and date to enter. No plodding from star to star to star. Just enter your city or ZIP Code and AutoAlign automatically aligns your telescope and finds two fine-tuning stars for you. Center them and you're ready to tour the universe.

SmartFinder

The easiest way to center a star.

Meade SmartFinder helps novices with one of the early frustrating parts of astronomy: Centering objects in the finder scope. To the veteran, this is easy. But to a novice it can feel like looking for stars through a drinking straw. By contrast, Meade's unique red dot finder lets you look at a wide field of the sky with both eyes open. You simply center the red dot on the object you want to see. Then look through your telescope's eyepiece and it will be there.

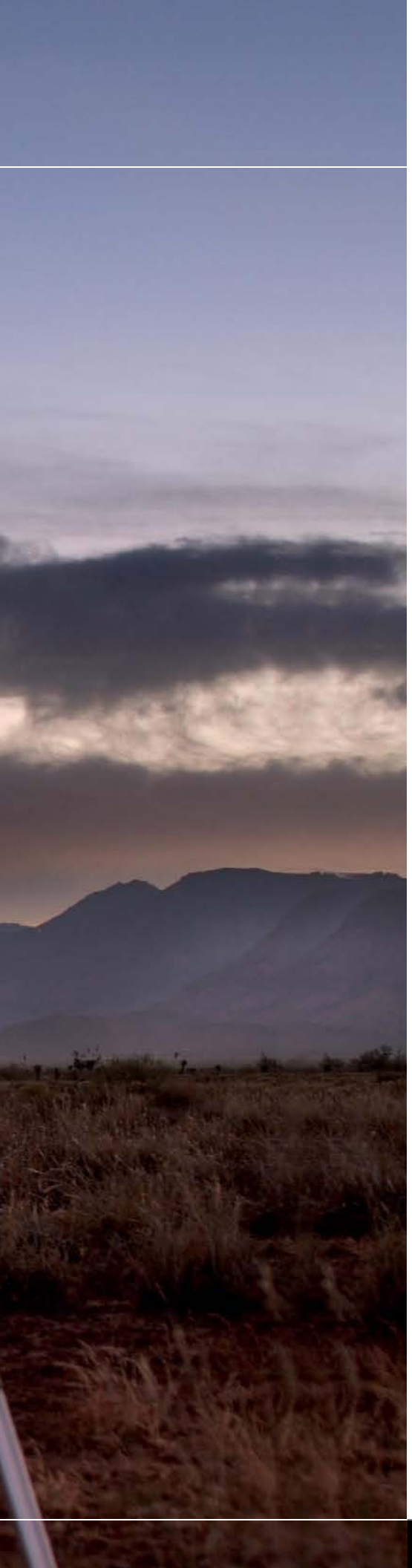


Two stars are easier than three.

Other manufacturers' three-star alignment methods require you to first enter your precise time, date and location (except with GPS scopes) and then choose, move to, and center three bright objects in the night sky. This means you have to guess at random which objects are bright enough (only a limited number of objects will work, and in a dark sky everything may look bright to you). You must also decide which objects are far enough apart and geometrically diverse enough to work. If one of your objects is too faint, or too close to another star, or in line with your other two objects, your alignment may fail. With Meade's AutoAlign, you simply enter your ZIP Code, center two stars AutoStar finds for you, and you're done. It's that easy.

“The coolest thing we saw in Mexico was Saturn.”

Camping out is a great way to see the world. Just remember that some of nature’s grandest sights are directly over your head.



THE ETX-80™ ULTRA-PORTABLE TELESCOPE

Ever get so far away from the city that the stars look like you could reach out and touch them? Wish you could get just a little closer? Now you can. The ultra-portable ETX-80 is the perfect campground observatory. It's ideal for camping, hiking, picnics, the beach, vacations, or any other time you want to connect with nature and the universe.

The smallest ETX has big advantages.

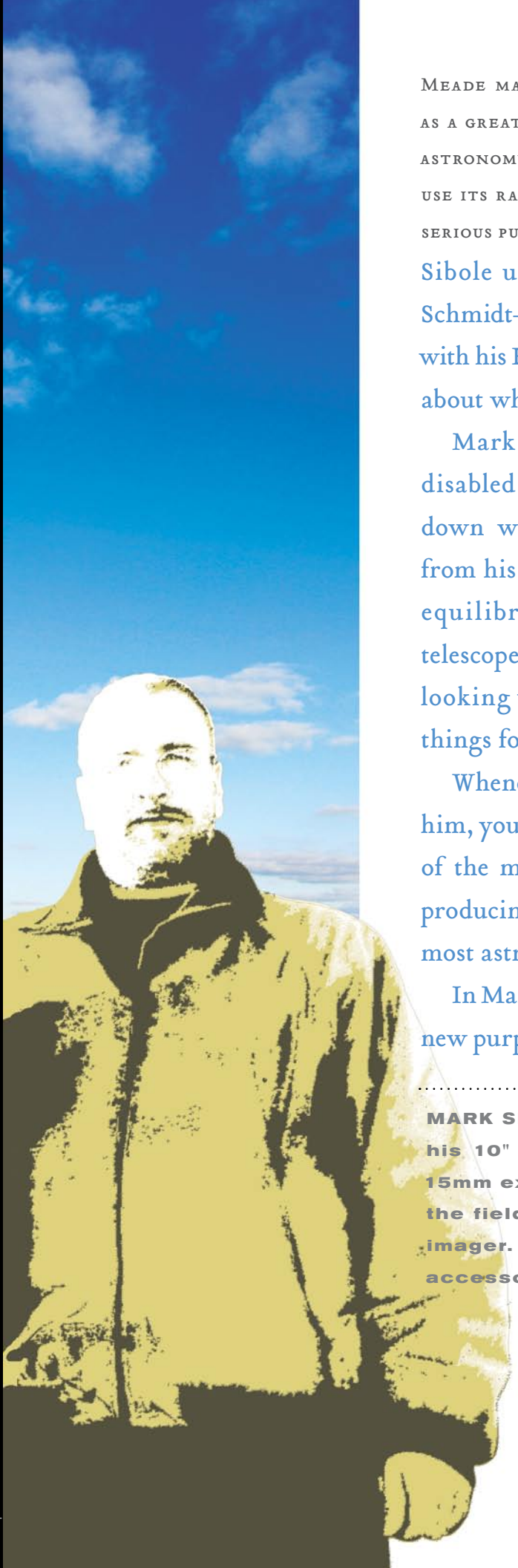
If aperture is so important, why buy the smallest ETX? Besides its low cost, this is simply a great telescope. Unlike the rest of the ETX line, it is a refractor (pg. 45). To you, this means an ultra-lightweight, portable telescope with just the right amount of aperture to see hundreds of the brightest astronomy targets in all their glory. It has many of the computer-guided advantages of its big brothers. It's the perfect scope for daytime bird and nature watching too.

What can you see? Practically everything.

Large aperture telescopes are awesome, but how likely are you to lug them out to your favorite dark sky location? Remember, more aperture lets you see fainter objects. In a different way, so does getting away from the city lights. You can study craters on the moon, the rings of Saturn, the moons of Jupiter, plus hundreds of galaxies, nebulas, double stars, clusters, you name it. The ETX-80 gathers 246% more distant star light than Galileo's telescope.

MARK SIBOLE / M51 - WHIRLPOOL GALAXY / ETX-125 / DSI PRO II

MARK SIBOLE / NGC 4565 - NEEDLE GALAXY / ETX-125 / DSI PRO II



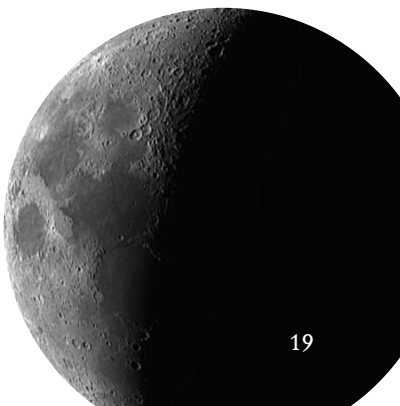
MEADE MAY RECOMMEND THE ETX-PE AS A GREAT WAY TO START OUT RIGHT IN ASTRONOMY. BUT SOME ASTRONOMERS USE ITS RAZOR-SHARP OPTICS FOR MORE SERIOUS PURSUITS. Award winning astrophotographer Mark Sibole uses our new back cell adapter (which accepts Schmidt-Cassegrain accessories) to capture deep sky objects with his ETX in breathtaking detail. His shots speak volumes about what this little scope can do.

Mark is an amazing person who was permanently disabled after being hit by a car in 1996. He later came down with multiple sclerosis. MS took away the sight from his right eye and continues to give him trouble with equilibrium. He told us, "Without my Meade GoTo telescope, this would be a very difficult hobby because looking up makes me dizzy. But my scope's ability to find things for me erases that problem completely."

Whenever his health and cloudy Michigan skies will let him, you'll find Mark in his observatory imaging. He's one of the most prolific astrophotographers we've ever seen, producing as many quality images in three clear nights as most astronomers will produce in three clear months.

In Mark's own words, "Meade's DSI has given me a whole new purpose in life – it's what gets me up in the morning."

MARK SIBOLE'S SET-UP: The ETX-125 piggybacked on his 10" LX200, with Meade's new Back Cell adapter, 15mm extension adapter, a 3.3 focal reducer to widen the field and shorten the exposures, and a DSI Pro II imager. See DSI imagers (pg. 122), and other imaging accessories (pg. 138).



MARK SIBOLE / MOON / ETX-125 / DSI PRO II

.02
ENTHUSIAST
LIGHTBRIDGE™
SERIES

If affordable aperture is what you're after, cross the universe with a LightBridge truss-tube Dobsonian.

Aimee Cheung: *Linguistics professor, runner, LightBridge owner.*

Level: *Big aperture on a budget.*

Mindset:
"I want enough aperture to see really faint objects without spending a lot of money. I see a simple, economic design as a plus, not a minus."

Mantra:
Live large.

Priorities:
Portable affordable aperture. Period.

Goals:
See the deep sky in greater brightness and detail. Capture more structure from planets, nebulas, galaxies, and star clusters.

Also used by: Recruit, Hot Shot and Fanatic.

Performance:

Good for capturing light from distant objects.
Not for terrestrial viewing or astrophotography.

Optical Design:

Dobsonian mounted Newtonian reflector (see pg.47).

Strengths:

Easy to point and use. Largest aperture for the money. Lightweight and portable. Crisp Meade optics in the simplest of telescope designs.

Buzz:

Dobsonian scopes have popularized astronomy worldwide since their invention by a San Francisco monk in the 1950s.

.01

RECRUIT

.03

HOT SHOT

.04

FANATIC

.02

CAN'T WAIT TO GO BIG? Go Dobsonian.

LIGHTBRIDGE™ SERIES ▸ DELUXE

"The optics were comparable to my $4000 scope. The LightBridge is a bargain."

— Terry Mann, V.P., Astronomical League

"Galaxies M81 and M82 contrasted well against a black background. Open clusters showed beautiful groupings of pin point stars."

— Sky News Magazine

"I can't recall a telescope that was more of a joy to test... They are a dream for observers."

— Sky & Telescope Magazine

In the 1950s, John Dobson was a San Francisco monk with a simple goal: To share the wonders of the universe with as many people as possible. The scope design that bears his name started as a way to help enthusiasts build simple working telescopes out of backyard "junk." But Dobson's way to "go big" changed the face of amateur astronomy forever.

For those who don't want to polish their own mirrors, scavenge for cardboard tubes, or buy a truck to carry their telescope, Meade introduces LightBridge™ truss-tube Dobsonians. These quality instruments combine the simplicity of a Dobsonian mounted reflector with diffraction-limited (observatory class) Meade optics in a portable truss design. 8" to 16" telescopes capture more light from faint deep sky gems than their smaller counterparts, allowing you to see the spiral arms of dim galaxies and the swirling clouds of far away nebulas.

Diffraction-Limited Optics. Meade optics consistently outperform telescopes of similar and even larger aperture. Images are detailed, crisp, and full of contrast. **A.**

Meade Optical Coatings. Aluminum coatings with magnesium fluoride overcoat provide bright images that are full of detail and contrast. **B.**

2" Crayford-Style Machined Aluminum Focuser With 1.25" Adapter. This classic design allows smooth, precise focusing. A focus tension knob and focus lock provide added focus control. **C.**

Metal Open-Truss Design. For quick take down and set-up without sacrificing stability. **D.**

Built-In Primary Mirror Cooling Fan. Battery powered cooling fan brings the telescope into thermal equilibrium quickly and efficiently. **E.**

Steel RA Roller Bearings. Steel roller bearings make movements smooth and effortless. **F.**

Advanced Four-Reticle Red Dot Finder. Four reticles and varying brightness controls allow this deluxe finder to adjust to your observing needs. **G.**

26mm QX™ Wide Angle 2" Eyepiece. This premium eyepiece has a 2" barrel, and boasts a whopping 70° Apparent Field of View (AFOV). **H.**

Altitude and Azimuth Tension Adjustment. Allows control over vertical and horizontal tension for greater control of your scope's position. **I.**

Space is infinite.

Choosing your LIGHTBRIDGE™

It's not just a big telescope. It's a big telescope that goes anywhere. LightBridge truss-tube dobs break down and set up quickly. So you can take one of these massive windows on the universe out to your favorite dark sky location with ease. A LightBridge gives you high quality Meade optics, premium components, and ultra portability – all for about the same price as an ordinary dobsonian. Any LightBridge dob will give you a lifetime of observing pleasure. Each comes complete and ready to stargaze with features like steel RA roller bearings, an advanced four-reticle red dot finder, a premium QX 2" wide-angle eyepiece, a primary mirror cooling fan, plus altitude and azimuth tension adjustments that help keep your telescope on target. Choose your LightBridge aperture and prepare to cross the universe.

Aperture: How bright do you want it?

For a detailed description of what aperture is, see page 57. But suffice it to say, if you are going for a Dobsonian, you want as much light gathering capability as you can afford. All LightBridge Truss Dobs take down for maximum portability. So go for the light. A 10" LightBridge will capture 56% more light than an 8". A 12" will capture 44% more light than a 10". A 16" will capture 77% more light than a 12".

Mechanical Stuff: Bearings and tension adjustments.

LightBridge Deluxe telescopes were designed to operate smoothly. They come with steel roller bearings that make moving the scope effortless, and include altitude and azimuth tension adjustment knobs that let you choose the tension of your scope's side-to-side and vertical movement.

Accessories: Viewfinder and eyepieces.

The LightBridge Deluxe comes with an advanced four-reticle red dot viewfinder that allows you to choose from four different cross-hair patterns and vary the red-dot brightness for different observing needs. The red dot finder makes pointing your telescope fast and easy. Just center the illuminated red dot over the star or object you are targeting. It's that simple. LightBridge Dobs also include a 26 mm QX Wide angle 2" eyepiece with a breathtaking 70° apparent field of view (AFOV).

Adding on to your LightBridge:

While your LightBridge comes with everything you need to get started, it can also grow with you. Additional eyepieces will give you more magnifying power and/or expand your field of view. Filters can reduce the effects of city lights or bring out details on planets, the moon, and nebulas. You'll find these accessories and more on pages 130-143.

For a computer-guided Newtonian Reflector, see the LXD75 Schmidt-Newtonian (see pg. 39).

LIGHTBRIDGE
DELUXE 8" AND 10"

8" Deluxe #0805-05-02	10" Deluxe #1005-05-02
8" (203mm) aperture	10" (254mm) aperture
Open truss-tube Dobsonian Reflector	Open truss-tube Dobsonian Reflector
f/6 focal ratio (1219mm)	f/5 focal ratio (1270mm)
Steel Azimuth Bearings	Steel Azimuth Bearings
Advanced 4-reticle red dot viewfinder	Advanced 4-reticle red dot viewfinder
26mm Series 4000™ QX Wide Angle eyepiece (70° AFOV)	26mm Series 4000 QX Wide Angle eyepiece (70° AFOV)
44 lbs total net weight	65 lbs total net weight
Primary Mirror Cooling Fan	Primary Mirror Cooling Fan
4 AA batteries (user supplied)	4 AA batteries (user supplied)

LIGHTBRIDGE
DELUXE 12" AND 16"

12" Deluxe #1205-05-02	16" Deluxe #1645-05-02
12" (304.8mm) aperture	16" (406.4mm) aperture
Open truss-tube Dobsonian Reflector	Open truss-tube Dobsonian Reflector
f/5 focal ratio (1524mm)	f/4.5 focal ratio (1829mm)
Steel Azimuth Bearings	Steel Azimuth Bearings
Advanced 4-reticle red dot viewfinder	Advanced 4-reticle red dot viewfinder
26mm Series 4000 QX Wide Angle eyepiece (70° AFOV)	26mm Series 4000 QX Wide Angle eyepiece (70° AFOV)
80 lbs total net weight	128 lbs total net weight
Primary Mirror Cooling Fan	Primary Mirror Cooling Fan
4 AA batteries (user supplied)	4 AA batteries (user supplied)

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.

"I WAITED 46 YEARS
TO SEE THE RINGS OF SATURN.
I DIDN'T WANT MY SON TO
WAIT MORE THAN FIVE."

Greg Aramaki – Portland Oregon

IT WAS THE FIRST CLEAR NIGHT SINCE CHRISTMAS. Early-January. Seventeen degrees. I was spending a few minutes alone with our new telescope before I invited my wife and son Andrew outside for a look (it's always easier to figure out new tech gadgets without people looking over your shoulder). But the family couldn't wait. The next thing I knew, two shivering people were pacing back and forth expecting me to show them something wonderful in our new telescope. Fast.

I crossed my fingers hoping I had set up my scope properly. It was so easy that I had barely bothered to read the instructions (yes, I'm one of those people). After consulting the included AutoStar Suite software on my PC, I went outside and located Saturn with relative ease. At least I thought the bright object I picked out was Saturn. I wouldn't be sure for a few more minutes.

I moved my new LightBridge around and centered the illuminated red dot finder over the "star" I hoped was Saturn. Imagine my surprise (and relief) when I turned the focus knob and suddenly saw the ringed planet staring back at me.

When I told my wife I found Saturn, we agreed to let my son go to the eyepiece first. For the next five minutes, I was his hero. He just kept looking and looking, all the while shooting off a barrage of questions I could barely answer.

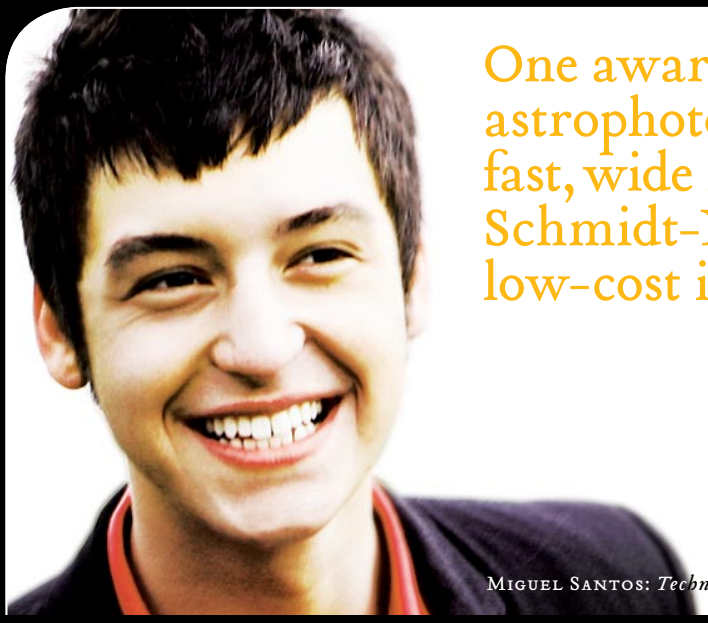
I turned the scope toward the moon and was shocked to find this most obvious of targets to be more detailed and interesting than I ever imagined. Andrew got a look and I'm pleased to report my hero status was extended for an additional five minutes.

Since that night we've been making a list of favorite night sky objects: Orion Nebula, Andromeda Galaxy, Jupiter, and of course, Saturn. Now Andrew asks to go out stargazing one or two nights a week. It's an excuse for staying up past bedtime that never fails.

.03

HOT SHOT

LXD75™ SERIES



One award-winning astrophotographer calls the fast, wide field, of the LXD75 Schmidt-Newtonian "a killer low-cost imaging platform."

Miguel Santos: *Technical writer, amateur filmmaker, LXD75 owner.*

Level: *Backyard observer exploring astrophotography.*

Mindset:
"I want 5" to 10" of aperture on a solid, German Equatorial Mount so I can see farther and learn to take beautiful astrophotographs without selling my house first."

Mantra:
Ready to get serious.

Priorities:
Aperture. Fast focal ratio. Crisp optics. Accurate computerized German equatorial mount.

Goals:
Observe at a higher level. Learn astrophotography on equipment that won't hold me back. Get crisp optics on a great mount that will accept different optical tube assemblies (OTAs).

Also used by: Enthusiast, Fanatic, and Specialist

Performance:

Time-tested platform for wide-field observing and astrophotography.

Optical Design:

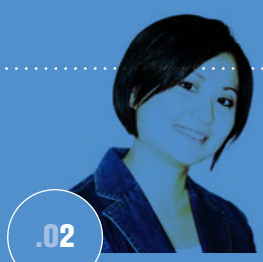
Newtonian-Reflector, Schmidt-Newtonian, Achromatic Refractor, Advanced Coma-Free (see pg. 49).

Strengths:

Stable German equatorial mount. Fast (f/4) focal ratio on 8" and 10" Schmidt-Newtonians. Optics praised as "best-in-class." Considered the ideal platform for Meade's DSI imagers (see pg. 120).

Buzz:

An LXD75 helped first-time astrophotographer Wolfgang Kloehr discover a supernova from his backyard in 2005 (see story on pg. 36).



.02 ENTHUSIAST

.04 FANATIC

.07 SPECIALIST

.03 EQUATORIAL LOVERS UNITE. Observe. Shoot. Enjoy.

LXD75™ SERIES ▸ NEWTONIAN
SCHMIDT-NEWTONIAN
ACHROMATIC REFRACTOR
ADVANCED COMA-FREE

E. F. G. J.

K.

"The Schmidt-Newtonian optics are great. Very, very contrasty. A very rich field."

—Todd Rogelstad, Astrophotographer

"The LXD75 SN8 and the DSI Pro II are such an incredible match, I would put the images they produce up against systems costing thousands more."

— Steve Hamilton, Astrophotographer

"The tripod is so stable that even when heavy trucks rumble through my street, vibrations are dampened quickly"

— George Moromisato, Astrophotographer

The LXD75 series is the perfect "step-up" telescope for anyone who wants to see farther and begin to explore astrophotography with a Meade DSI imager (see pg.120). This series gives you a solid GoTo mount with time-tested pointing and tracking accuracy and enough aperture to capture the faint light of tantalizing deep space objects. It also makes premium optics (including the elite Schmidt-Newtonian optical design that only Meade makes) affordable to everyone. The LXD75 German Equatorial Mount is the most sturdy, worm-driven, computer-compatible mount you will find for the money. Add a fast f/4 focal ratio 8" or 10" Schmidt-Newtonian and you have a set-up tailor-made for Meade's DSI imagers (f/4 is the optimum focal ratio for any DSI, DSLR, or CCD imager).

The entire LXD75 series is built around the sturdy LXD75 German Equatorial Mount that can also be used with other old or new optical tube assemblies in your collection.

Sturdy Mount/Heavy-Duty Castings. Engineered for high-performance activities. Astrophotographer George Moromisato says, "The sturdy mount lets me slew blind to objects too faint to see, then track and capture them with CCD astrophotography." **A.**

Quick-Release Cradle Ring Assembly. Allows optical tube assemblies (OTAs) to be easily removed from the mount for transportation. Also makes changing to other OTAs quick and easy. **B.**

Accurate and Precise Shaft and Bearing System. The RA and Dec axes move effortlessly on four high-precision stainless steel ball bearings. **C.**

High-Precision Worm Gears. Located on both axes for ultra-smooth slewing and tracking. **D.**

High-Precision Pointing (HPP). HPP function adds further accuracy by placing objects in the exact center of the field of view so you can confirm deep sky objects at the faintest limits of the scope's capabilities. **E.**

Periodic Error Correction (PEC). Corrects periodic error in the RA axis, thereby minimizing guiding corrections during long-exposure CCD astrophotography. **F.**

9-Speed Drive Controls. Choose speeds easily with the AutoStar® controller. Rapid slew rate of 7.5°/second saves slewing time all night long. Slowest rate of 1x sidereal allows careful centering of objects. **G.**

Heavy-Duty Tripod. Variable-height field tripod with spreader bar provides the stability and vibration dampening required for visual observation and long-exposure CCD astrophotography. **H.**

Illuminated Polar Alignment Viewfinder. For quick, precise polar alignment. **I.**

AutoStar® controller. Legendary user-friendly controller finds things in the night sky for you (see pg.12). **J.**

AutoStar Suite™ Software/Training DVD. Astronomer Edition planetarium software helps you learn the night sky. It also lets you control your telescope from your Windows® compatible PC (with optional cord, see pg. 140). Training DVD walks you step-by-step through the set-up and use of your telescope. **K.**

26mm Series 4000™ Eyepiece. Wide field of view makes stargazing easy. Quality optics for high-contrast images. **L.**

UHTC.™ Our exotic multi-layer optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on scope size). Objects appear dramatically brighter (see pg. 68). **M.**

LXD75 N

LXD75 6" NEWTONIAN REFLECTOR

- 6" (152MM) APERTURE
- NEWTONIAN REFLECTOR
- f/5 FOCAL RATIO (762MM)
- #497 AUTOSTAR (30,000+ OBJECTS)
- 6 X 30MM VIEWFINDER
- 26MM SERIES 4000™ SUPER PLÖSSL EYEPIECE
- FULLY-COATED OPTICS
- 48 LBS TOTAL NET WEIGHT
- OPTICAL TUBE: 7.1" DIA, 27" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 2X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0605-75-11

LXD75-ACF

LXD75 8" ADVANCED COMA-FREE

- 8"(203MM) APERTURE
- ADVANCED COMA-FREE
- f/10 FOCAL RATIO (2000MM)
- #497 AUTOSTAR (30,000+ OBJECTS)
- 8 X 50MM VIEWFINDER
- 26MM SERIES 4000 SUPER PLÖSSL EYEPIECE
- UHTC™ OPTICAL COATINGS INCLUDED
- 69 LBS TOTAL NET WEIGHT
- OPTICAL TUBE: 9" DIA, 17" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 2X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0810-75-02

LXD75 SN

LXD75 6" SCHMIDT-NEWTONIAN

- 6" (152MM) APERTURE
- SCHMIDT-NEWTONIAN
- f/5 FOCAL RATIO (762MM)
- #497 AUTOSTAR (30,000+ OBJECT DATABASE)
- 8 X 50MM VIEWFINDER
- 26MM SERIES 4000 SUPER PLÖSSL
- UHTC OPTICAL COATINGS INCLUDED
- 48 LBS TOTAL NET WEIGHT
- OPTICAL TUBE: 7.1" DIA, 27" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 2X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0605-75-02

LXD75 8" SCHMIDT-NEWTONIAN

- 8" (203MM) APERTURE
- SCHMIDT-NEWTONIAN
- f/4 FOCAL RATIO (812MM)
- #497 AUTOSTAR (30,000+ OBJECT DATABASE)
- 8 X 50MM VIEWFINDER
- 26MM SERIES 4000 SUPER PLÖSSL
- UHTC OPTICAL COATINGS INCLUDED
- 69 LBS TOTAL NET WEIGHT
- OPTICAL TUBE: 10" DIA, 29.5" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 2X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0804-75-02

LXD75 10" SCHMIDT-NEWTONIAN

- 10" (254MM) APERTURE
- SCHMIDT-NEWTONIAN
- f/4 FOCAL RATIO (1016MM)
- #497 AUTOSTAR (30,000+ OBJECT DATABASE)
- 8 X 50MM VIEWFINDER
- 26MM SERIES 4000 SUPER PLÖSSL
- UHTC OPTICAL COATINGS INCLUDED
- 85 LBS TOTAL NET WEIGHT
- OPTICAL TUBE: 11.9" DIA, 36.1" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 2X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#1004-75-02

LXD75 AR

LXD75 5" ACHROMATIC REFRACTOR

- 5" (127MM) APERTURE
- ACHROMATIC REFRACTOR
- f/9.3 FOCAL RATIO (1180MM)
- #497 AUTOSTAR (30,000+ OBJECT DATABASE)
- 8 X 50MM FINDER
- 26MM SERIES 4000 SUPER PLÖSSL
- 49 LBS TOTAL NET WEIGHT
- 6.3" DIA, 41" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 1X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0509-75-01

LXD75 6" ACHROMATIC REFRACTOR

- 6" (152MM) APERTURE
- ACHROMATIC REFRACTOR
- f/8 FOCAL RATIO (1219MM)
- #497 AUTOSTAR (30,000+ OBJECT DATABASE)
- 8 X 50MM FINDER
- 26MM SERIES 4000 SUPER PLÖSSL
- 72 LBS TOTAL NET WEIGHT
- 8" DIA, 42" LENGTH
- 8 D BATTERIES (USER SUPPLIED)
- SLEW SPEED: 1X SIDEREAL TO 7.5°/SEC IN 9 INCREMENTS
- GUIDE SPEED: 2X SIDEREAL

#0608-75-01

Also available:

LXD75 Mount Only

German Equatorial Mount with #497 Deluxe AutoStar

#37-7500-00

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.

Choosing the right LXD75™

Whether you're ready to tackle the exciting world of astrophotography or just want to upgrade to a larger aperture telescope, the LXD75 series has something for everyone. Because these scopes incorporate engineering innovations from many of Meade's higher-priced instruments, they are the most serious, moderately-priced telescopes on the market. From the entry level 6" Newtonian Reflector to the "best kept secret in astrophotography" (the 8" & 10" Schmidt-Newtonians), any of these telescopes will make the perfect first or second telescope for anyone who has caught the astronomy bug. The LXD75 Newtonian and Schmidt-Newtonian are also great alternatives to a Dobsonian for those who want GoTo capabilities. First, choose your optical system (see pgs. 45-49), then simply decide on an aperture that suits your needs. Purchase a DSI imager and you can learn to shoot pristine and publishable images of galaxies, nebulas, and clusters in breathtaking color and detail. An LXD75 is your ticket to shooting like the big boys.

Optical Systems. A whole telescope family in a single line.

The LXD75 line represents all three major telescope types; refractor, reflector, and compound. To learn more about optical systems, see page 45-49. We suggest you study the following pages to understand the features and benefits of each scope in the LXD75 line. But if you'd like us to simplify your choice for you, go for the popular 8" Schmidt-Newtonian. For the past few years, online user groups and forums have praised its fast focal ratio and incredibly crisp, wide-field optics.

The UHTC™ advantage. A difference you can see.

Meade Ultra-High Transmission Coatings (UHTC) are an amazing scientific breakthrough that increase brightness by the equivalent of nearly an inch of aperture (depending on scope size). These coatings are exclusive to Meade and make a real difference over competing scopes. Image brightness is increased by 15% over standard coatings (see pg. 68).

Add a Meade Lunar Planetary or Deep Sky Imager. See what you've been missing.

As long as you're moving up to a polar-aligned, large-aperture scope, you'd be crazy not to at least give deep space astrophotography a try. Meade's user-friendly and affordable imagers make it easier than ever. See page 116 for our full line of imagers.

Observatories survey the sky. Computers analyze the data. Scientists sleep.

Meanwhile, some guy named Wolfgang discovers a supernova in his backyard.

We're not saying everyone who buys a new LXD75™ telescope and a Deep Sky Imager™ will discover a supernova their first few weeks out. But that's exactly what happened to first-time astrophotographer Wolfgang Kloehr. Here's his story. I owned a small telescope for a long time. But I didn't go out very often. From time to time I wondered how much it would cost to get into astrophotography. Then in May 2005, I discovered the 8" LXD75 Schmidt-Newtonian and Deep Sky Imager at a small shop in Wurtzburg, Germany. I bought them and started taking pictures.

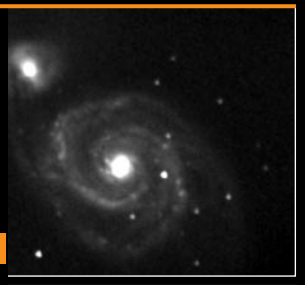
Five weeks later, on June 27th, 2005, I was comparing some photos of the Whirlpool Galaxy (M51) with ones I had taken earlier when I saw a small bright spot that wasn't there before. I checked all the usual sources for minor planets, supernovas, variable stars, or any explanation of a bright object in M51. There was nothing. Could this be a star exploding in a distant galaxy? I had to find out. For the next few nights I fought cloudy skies to confirm the discovery.

My first ever dispatch to Dan Green at CBAT (Central Bureau For Astronomical Telegrams) went as well as could be expected. Mr Green patiently explained that I needed to provide better coordinates and more positive confirmation photos. I was new to this.

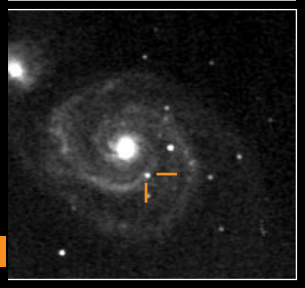
When the weather went from bad to worse, I figured my chance for a first discovery was gone. Someone was bound to have seen this bright new thing by now. On June 30th, the sky cleared just long enough to get another photo. I submitted it and got an immediate email response.

The heading announced a new supernova (SN 2005cs in M51). Two independent sources in the U.S. and Japan had confirmed the discovery. Was I the official discoverer? Was my name included in a long list of discoverers? Did I even make the list at all? I found the supernova on the International Astronomical Union bulletin and scrolled to the column "Discoverer." There was only one name: Wolfgang Kloehr.

Wolfgang's discovery kit: The fast focal ratio and solid equatorial mount of the 8" LXD75 Schmidt-Newtonian make it the perfect companion to Meade's Deep Sky Imager. Together they make astrophotography (and discovery) easier.



A



B

A: REFERENCE
B: DISCOVERY

WOLFGANG KLOEHR

SCHWEINFURT, GERMANY

SUPERNOVA DISCOVERY

LXD75 / DEEP SKY IMAGER

The 6" Newtonian Reflector is like a little brother to our Dobsonians (see pg. 20). It shares many of the same practical benefits: An inexpensive Newtonian design. Fewer parts. Nothing to go wrong. Unlike a Dobsonian, the LXD75 Newtonian has a Deluxe AutoStar® controller and motorized drives that will automatically GoTo and track over 30,000 celestial objects. The scope has enough aperture to offer a serious step up from the average starter scope. But it is still lightweight, portable, and relatively inexpensive.

+ **Parabolic Primary Mirror.** Significant because many cheaper Newtonians are merely spherical. Quality Meade optics mean the best possible views.

+ **Deluxe AutoStar Controller.** The industry's most advanced and widely used computer controller. Offers professional quality GoTo slewing and tracking plus guided tours, object descriptions, fun facts, and astrophotography tools (see pg. 13).

+ **AutoStar Suite™ Software.** Astronomer Edition planetarium software helps you learn the night sky. It also lets you control your telescope from your PC (Windows® compatible).

+ **Fast f/5 focal ratio.** Ideal for CCD imaging and wide-field viewing.

+ **6x30 Viewfinder.** For easy location and centering of astronomical objects

+ **26mm Series 4000™ Super Plössl Eyepiece.** For sharp 52° wide-angle views.

+ **2" Focuser with 1.25" adapter.** Rack-and-pinion focuser is the perfect marriage of touch and precision.

6" NEWTONIAN REFLECTOR.

Simple is beautiful.

Deluxe AutoStar #497
30,000+ objects

The Schmidt-Newtonian is a design so unique, only Meade makes it. This revolutionary design gives you the best of both worlds: Observing. Astrophotography. It does it all. The fast f/4 focal ratio (8" and 10" models) is an ideal match for Meade's user-friendly Deep Sky Imagers. And thanks to world-famous Meade corrector lens technology, Schmidt-Newtonians have just ½ the coma of standard Newtonians. (coma is a fuzzy-star aberration that occurs in standard Newtonian and Dobsonian reflectors).

These scopes are versatile, portable, and high-tech. Online forums positively rave about the optics. Astrophotographer Steve Hamilton is impressed by "the tack-sharp round stars, exquisite detail, and flat field" of these premium scopes. They are an "astrophotographer's dream," perfect for taking low-power images of objects so faint you can't even see them with the naked eye. The Schmidt-Newtonian is the flagship of the LXD75 line. Buy one and let the fun begin.

- **Fast f/4 Focal Ratios (8" and 10").** Shorter exposure times and wide fields of view yield spectacular views and photos of nebulas, clusters, and galaxies.
- **Legendary diffraction-Limited Optics.** Only Meade individually figures their optics for observatory-class light transmission, temperature stability, smoothness and image correction. Our optics lead the industry. (See pg. 128)
- **Water White Glass Corrector Lens.** Fully corrects for spherical aberration for pinpoint star images. Water White glass increases light transmission by more than 10% over scopes using soda lime glass.
- **Pyrex® Primary Mirror.** Provides exceptional thermal stability versus competing models using standard plate glass.
- **AutoStar® Controller.** The industry's most advanced and widely used computer controller. Offers professional quality GoTo slewing and tracking plus guided tours, object descriptions, fun facts, and astrophotography tools. (See pg. 13)
- **2" Focuser with 1.25" adapter.** Rack-and-pinion focuser is the perfect marriage of touch and precision.
- **8x50 Achromatic Viewfinder.** For easy location and centering of deep sky objects.
- **26mm Series 4000™ Super Plössl Eyepiece.** For sharp 52° wide-angle views.

6", 8", 10" SCHMIDT-NEWTONIANS.

The focal ratio sweet spot.

Deluxe AutoStar #497
30,000+ objects

Observe like Galileo with our 5" and 6" achromatic refractors. This classic telescope design is also the most expensive per inch of aperture. But refractors provide incomparable resolution in high-contrast images of the moon, planets, and deep space objects. Less expensive than an apochromat (APO, see pg. 45), these 2-element refractors are an excellent choice for any astronomer who's looking for the crisp resolution of a refractor at an affordable price.

+ **Deluxe AutoStar® Controller.** The industry's most advanced and widely used computer controller. Offers professional quality GoTo slewing and tracking plus guided tours, object descriptions, fun facts, and astrophotography tools (see pg.13).

+ **Rack-and-Pinion Focuser.** Permits smooth and precise focusing.

+ **1.25" Diagonal.** Provides comfortable viewing. Fully coated for maximum reflectivity.

+ **8x50 Achromatic Viewfinder.** For easy location and centering of deep sky objects.

+ **26mm Series 4000™ Super Plössl Eyepiece.** For sharp 52° wide-angle views.

5" & 6" ACHROMATIC REFRACTORS.

A big dose of unobstructed aperture.

Deluxe AutoStar #497
30,000+ database

If you're looking for the optical quality of a Meade LX90-ACF Advanced Coma-Free on a German Equatorial Mount, this is your scope. As a less costly alternative to other Meade Advaced Coma-Free scopes, the LXD75-ACF is an excellent way to step up to an 8" computer-driven scope.

+ **Premium Diffraction Limited Optics.** Mirrors and lenses are individually figured for superior performance equal to scopes costing hundreds (sometimes thousands) more.

+ **Water White Glass Corrector Lens.** Fully corrects for spherical aberration for pinpoint star images. Water White glass increases light transmission by more than 10% over scopes with soda lime glass.

+ **Oversized Pyrex® Primary Mirror.** Only Meade manufactures primary mirrors larger than the scope's listed aperture to capture more light (see pg. 87). Pyrex provides exceptional thermal stability versus competing models that use standard plate glass.

+ **AutoStar Controller.** The industry's most advanced and widely used computer controller. Offers professional quality GoTo slewing and tracking plus guided tours, object descriptions, fun facts, and astrophotography tools (see pg.13).

+ **Same optical system as the LX90-ACF.** The Meade LXD75 Advaced Coma-Free gives you the same legendary diffraction-limited optics as the LX90-ACF series.

+ **1.25" Diagonal.** Provides comfortable viewing. Fully coated for maximum reflectivity.

+ **8x50 Achromatic Viewfinder.** For easy location and centering of deep sky objects.

+ **26mm Series 4000™ Super Plössl Eyepiece.** For sharp 52° wide-angle views.

8" ADVANCED COMA-FREE.

An Advanced Coma-Free for German equatorial mount lovers.

Deluxe AutoStar #497
30,000+ database

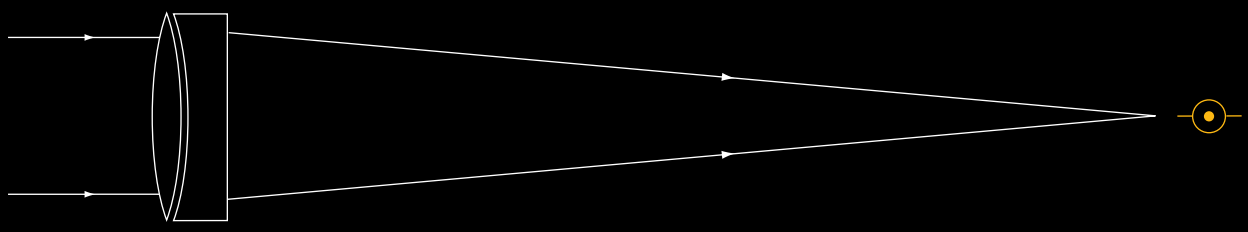
"The DSI Pro II and LXD75 SN8 make getting astrophotographs almost easy. They are an incredible match. The focus really "snaps" and is completely flat across the entire frame. I would put the astrophotographs they produce up against systems and imagers costing thousands of dollars more. To see these images come alive on your screen is really worth all the time you put into them."

—STEVE HAMILTON / M31 – ANDROMEDA GALAXY / LXD75 SN8 / DSI PRO II

PETER KENNET / M8 – LAGOON NEBULA / LXD75

STEVE HAMILTON / M81 – BODE'S GALAXY / LXD75 / DSI PRO II

PETER KENNET / M45 – PLEIADES / LXD75



Refractor: Captures light with a lens.

THE REFRACTOR. What Galileo Used.

What is it? A long tube with a lens at the front and an eyepiece at the back.

What About It? This oldest of telescope designs is also the most familiar. Galileo used one to discover the moons of Jupiter in the year 1610. Refractors capture light with a lens that focuses it at the back of the tube. They are famous for beautifully sharp, unobstructed views. They are also the most expensive telescopes per inch of aperture.

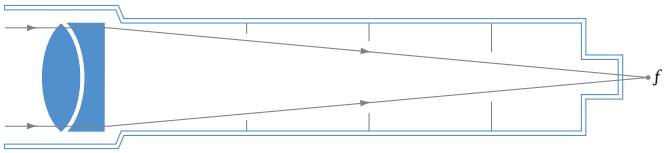
Who Uses Them? Refractors are a durable and reliable choice for beginners in smaller apertures. Larger refractors are prized by astrophotographers and serious observers for superb wide-field, high-contrast images.

For What? Excellent for bright objects like the Moon, planets, double stars, clusters. Good for light-polluted city stargazing and daytime land viewing. Aperture limitations make refractors a secondary visual choice for faint deep sky nebulas, clusters and galaxies. However, they are prized for wide-field astrophotography (see pg. 104).

Meade Scopes Available: Achromatic Refractors: ETX-80 (pg. 16), 5" and 6" LXD75 AR (pg. 40), 70AZ-AR and DS-2080 (pg. 109). Apochromatic Refractors: 80mm and 127mm Series 5000 ED APO Refractors (pg. 100).

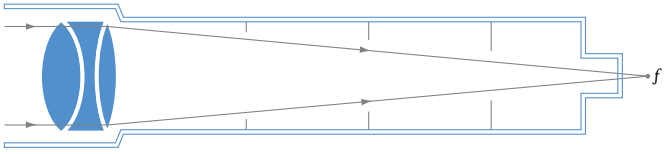
Achromatic:

Achromatic Refractors have two lenses with a thin air space in between them. This simple design is very effective and affordable. Because residual color (due to unequal focusing of different colors by the lens glass) can cause a slight halo around bright objects and the moon, more expensive Apochromatic refractors were developed.



Apochromatic:

Apochromatic Refractors use two (or preferably three) elements of a much more expensive extra-low dispersion (ED) glass to color-correct the image and eliminate color fringing. Meade's triplet design does this especially well (see pg. 100). These instruments offer some of the finest views in all astronomy at their respective apertures.



ASTROPHOTOGRAPHY: JASON WARE / MOON / LX400

Reflector: Captures light with a mirror.

THE REFLECTOR. Newton's Contribution.

What is it? A long tube with a mirror at the bottom and an eyepiece at the top.

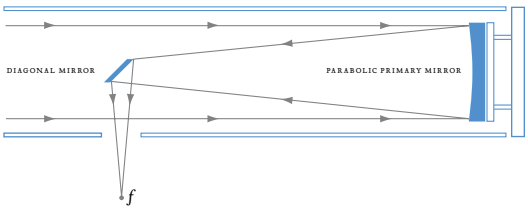
What About It? In 1668, Isaac Newton designed a telescope that collected light with a mirror instead of a lens. Reflectors capture light in a bowl-shaped mirror at the bottom of an open tube, then reflect the light and bring it to a focus near the top of the tube. As the least expensive design per inch of aperture, reflectors are known for giving astronomers the serious light-gathering capability necessary to explore the depths of space.

Who Uses Them? Reflectors are great for portable deep sky observing by all ability levels. Traditional closed-tube Dobsonians are not easily portable in apertures over 8" but Meade LightBridge™ truss-dobs are easily portable in all apertures. Schmidt-Newtonians are popular for their wide fields of view and astrophotographers love their fast (f/4) focal ratio.

For What? Highly rewarding resolution of faint deep sky nebulas, clusters, and galaxies (particularly from dark sky locations). Not suitable for daytime use or land viewing.

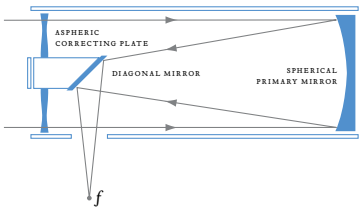
Meade Scopes Available: Newtonian: LXD75 6" Newtonian (pg. 38), 114EQ-ASTR, DS-2114, DS-2130 (pg. 110). Dobsonian: LightBridge 8", 10", 12", 16" (see pg. 20), Schmidt-Newtonian: LXD75 6", 8", 10" (see pg. 39).

Newtonian: Newtonian Reflectors are the classic Reflector design. They may also be mounted on an equatorial mount for computer-guided GoTo capabilities. (See pg. 38)



Dobsonian: Dobsonian telescopes are Newtonian Reflectors defined by their mount—a simple box-like design that allows the scope to rotate side-to-side and pivot up and down. They are the most simple, no-frills telescopes you can buy and are popular in larger apertures as the most inexpensive cure for "aperture fever."

Schmidt-Newtonian: Technically a compound telescope (see next page), this hybrid optical design adds a front corrector lens to the standard Newtonian reflector. Exclusive to Meade, this design provides pinpoint stellar images over an astoundingly wide field of view for brilliant high-resolution observing and imaging of nebulas, star clusters, and galaxies. Meade Schmidt-Newtonians are mounted on the LXD75 German Equatorial Mount for GoTo capabilities.



ASTROPHOTOGRAPHY: JASON WARE / NGC 7293-HELIX NEBULA / LX400

Compound: Captures light with a combination of lenses and mirrors.

THE COMPOUND. Modern Telescope Designs.

What is it? Any scope that uses a combination of lenses and mirrors.

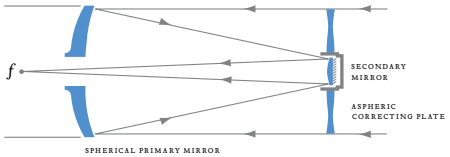
What About It? German astronomer Bernhard Schmidt made the first compound (also known as Catadioptric) telescope in 1930. A Compound telescope combines the best features of a refractor and a reflector into one compact telescope. Light travels through a correcting lens at the top of the tube to a concave mirror at the bottom of the tube, back to a small secondary mirror behind the lens, and is finally focused at the rear of the telescope. Their excellent optical performance, compact size, and relative affordability make compound telescopes by far the most popular design in use today. To a true astronomer, their profile is every bit as familiar as the long-tube refractor is to the novice. Only Meade compound telescopes feature oversized primary mirrors (see pg. 87).

Who Uses Them? Serious astronomers, astrophotographers, researchers, colleges, universities, public and private observatories all over the world. Also casual observers who want a combination of research quality optics, large aperture, and portability.

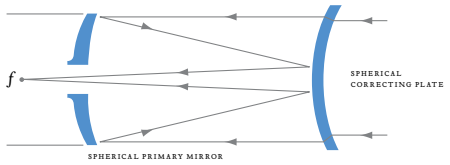
For What? Premium astrophotography and observation of everything from the Moon and planets to faint deep sky nebulas, clusters and galaxies. Scientific measurements. Discoveries of comets and supernovas. Very portable in small to medium apertures. Often mounted permanently in apertures over 14". Smaller apertures practical for daytime land viewing.

Meade Scopes Available: Maksutov-Cassegrain: ETX PE 90mm and 125mm (pg. 2). Advanced Coma-Free: LXD75-ACF 8" (pg 41), LX90-ACF 8"-12" (pg. 50) LX200-ACF 8"-16" (pg. 62), LX400 10"-16" and 20" (pg. 78).

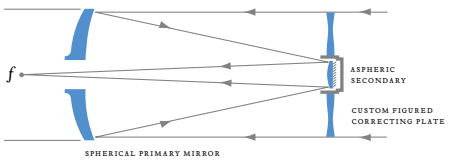
Schmidt-Cassegrain: As today's most widely used telescope design, the Schmidt-Cassegrain dominates astronomy clubs and star parties. For an affordable, portable, and nearly perfect all-around instrument, they are hard to beat. Quality models rival refractors in resolution and are only a little more costly than reflectors per inch of aperture. However, after 27 years of continuous production, Meade has stopped producing Schmidt-Cassegrain optics in favor of its superior Advanced Coma-Free optical systems.



Maksutov-Cassegrain: This design is much like the Schmidt-Cassegrain, but with a spherical corrector lens. This makes an even more compact telescope. Maksutov's are popular for both their portability and their textbook-perfect optical performance. But they are difficult to make right. Meade ETX's rank among the world's top Maksutov-Cassegrains.



Advanced Coma-Free: A traditional Ritchey-Chrétien (RC) is a type of reflector that has been the premium choice for astrophotography for the past half-century. You'll find the RC design in most of the world's top observatories and NASA's Hubble Telescope. Unfortunately, Ritchey-Chrétiens are very expensive to build (their prices make cars sound cheap). In 2004, Meade engineers developed a radical new design that makes RC performance available to everyone. By using a spherical primary mirror, a full aperture corrector lens, and a hyperbolic secondary mirror, Meade's Advanced Coma-Free (ACF) produces a coma-free, flat field-of-view. The ACF actually corrects for astigmatism better than the original (RC) design. Without a degree in optical engineering, what that means to you is that Meade's Advanced Coma Frees make observatory-class optics available for roughly one-fifth of what amateurs had to pay in the past.



ASTROPHOTOGRAPHY: JASON WARE / COMET HYAKUTAKE / MEADE 6" 152 ED APO

.04
FANATIC
LX90-ACF™
SERIES

When you step up to the LX90-ACF, you've made it. It's the first scope that could be your last scope.

Roger Jackson, *architect, Little League coach, LX90 owner.*

Level: *Exploring the depths.*

Mindset:
I'm hooked on Astronomy. Observing. Imaging. You name it. I'm looking for the absolute best 8" to 12" Schmidt-Cassegrain I can afford. I want the highest-quality optics and a rock-solid, computer-guided mount.

Mantra:
No clouds, please.

Priorities:
Legendary optics. High-precision tracking. Aperture. Stability. Auto alignment. GPS.

Goals:
Join the community of dedicated backyard astronomers. Treat my family and friends to the ultimate tour of the universe. Begin to take astrophotographs like a pro.

Also used by: Recruit, Hot Shot, Master.

Performance:
The ultimate all-around machine for the money.

Optical Design:
Advanced Coma-Free. (See pg. 49)

Strengths:
Industry leading optics. Precise computer driven mount.

Buzz:
Sky & Telescope wrote, "For a general-purpose telescope, this is one of the best ones I've ever tested out-of-the-box."

.01
RECRUIT

.03
HOT SHOT

.05
MASTER

.04 WELCOME TO SERIOUS ASTRONOMY. Here's your scope.

LX90-ACF™
ADVANCED COMA-FREE

F. G. H.

I.

A. J.

"The computer pointing was 100% accurate (scout's honor, not one miss in hundreds of GoTo moves)."
— Sky & Telescope magazine

"An LX90-ACF lets you take photos that look like they came straight from a Palomar Mountain Observatory sky survey."
— Tom King, Astrophotographer

"I was interested to see if the LX90 would live up to its (long-exposure astrophotography) claims. It certainly does. And then some."
— Sky & Telescope magazine

The LX90-ACF™ can locate over 30,000 objects including itself. Turn it on and the built-in Sony® GPS receiver immediately determines your precise date, time, and location. In just minutes, your scope is ready to give you a tour of the most spectacular sights in the universe with GPS precision. With all the features of a legendary LX90 Schmidt-Cassegrain, plus the ability to listen to and track satellites, Meade's new LX90-ACF has it all.

When you consider competing methods of alignment (synchronizing your telescope's computer with the night sky), nothing is easier than Meade's AutoAlign.™ Not even competing three-object alignment methods. That's because LX90-ACF telescopes are smart scopes that know the night sky right out of the box (see AutoAlign pg. 15). When it comes to industry-leading optics, oversized primary mirrors, depth of features, and value for your dollar, the LX90-ACF is the best Schmidt-Cassegrain you can find that can find itself.

AutoAlign™ Makes Alignment Easy. Aligns your telescope for you while you watch. Allows you to fine tune alignment with two stars it finds for you automatically when you turn it on (see pg. 15). **A.**

Advanced Coma-Free Optics. Only Meade individually figures their Water White glass corrector lenses and Pyrex® primary and secondary mirrors for observatory-class light transmission, temperature stability, smoothness and image correction. Our optics lead the industry (see pg. 128). **B.**

Exclusive Oversized Primary Mirror. Meade primary mirrors are larger than their listed apertures (the actual diameter of the 8" LX90-ACF primary mirror is 8.25"). This extra ¼" yields a wider, fully illuminated field of view and allows you to see the light competing Schmidt-Cassegrains leave behind. **C.**

Rigid Dual-Fork Mount. Cast aluminum fork mount provides a rock-solid platform for astrophotography and visual observation. Two forks are better than one. **D.**

LX200-ACF™-Series Tripod. The LX90-ACF comes with the same sturdy and adjustable field tripod as the LX200-ACF. For steady observing and imaging. **E.**

Smart Drive™. Provides Periodic Error Correction in the RA axis (in polar mode) over the course of one or more training periods, thereby minimizing guiding corrections during long-exposure astrophotography (see pg. 92). **F.**

9-Speed Drive Controls. Choose speeds easily with the AutoStar® controller. Rapid slew rate of 7°/second saves slewing time all night long. Slowest rate of .01x sidereal allows careful guiding for astrophotography. Includes precision adjustable guiding speeds for pinpoint astrophotography (see pg. 69). **G.**

AutoStar® Controller. The industry standard. Used by more astronomers than any other system for everything from backyard observing and imaging to observatory research. And the software is fully upgradable. You can download firmware updates, guided tours, and timely objects like comets and new discoveries for free at Meade.com. With AutoStar Update, your telescope will grow with you for years to come (see pg. 13). **H.**

AutoStar Suite™ Software. Easy-to-use planetarium software allows you to see what's in the sky tonight. Plan observing sessions, print star charts, even control your telescope from your PC. **I.**

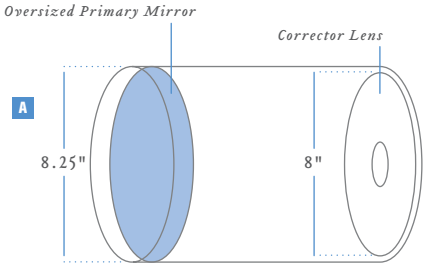
SmartFinder™ Red Dot and 8x50 Viewfinder. So you can quickly and easily locate and center objects (see pg. 15). **J.**

UHTC™. Our exotic multi-layer optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on scope size). Objects appear dramatically brighter (see pg. 68). **K.**

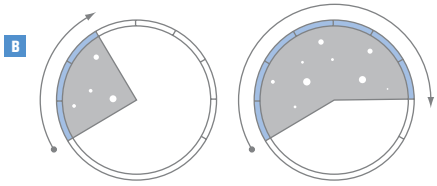
LX90-ACF

LX90-ACF 8" #0810-90-01	LX90-ACF 10" #1010-90-01	LX90-ACF 12" #1210-90-01
8" (203mm) aperture	10" (254mm) aperture	12" (305mm) aperture
Advanced Coma-Free	Advanced Coma-Free	Advanced Coma-Free
f/10 focal ratio (2000mm)	f/10 focal ratio (2500mm)	f/10 focal ratio (3048mm)
#497 AutoStar 30,000+ object database	#497 AutoStar 30,000+ object database	#497 AutoStar 30,000+ object database
8 x 50mm viewfinder plus SmartFinder red dot	8 x 50mm viewfinder plus SmartFinder red dot	8 x 50mm viewfinder plus SmartFinder red dot
26mm Series 4000™ Super Plössl	26mm Series 4000 Super Plössl	26mm Series 4000 Super Plössl
UHTC™ Optical Coatings included	UHTC Optical Coatings included	UHTC Optical Coatings included
52 lbs total net weight	69 lbs total net weight	79 lbs total net weight
Optical tube: 9.1" dia, 16.75" length	Optical tube: 11.75" dia, 22" length	Optical tube: 13.6" dia, 25" length
8 C batteries (user supplied)	8 C batteries (user supplied)	8 C batteries (user supplied)
Slew speed: 2x sidereal to	Slew speed: 2x sidereal to	Slew speed: 2x sidereal to
7°/sec in 9 increments	7°/sec in 9 increments	7°/sec in 9 increments
Guide Speed: 2x sidereal	Guide Speed: 2x sidereal	Guide Speed: 2x sidereal

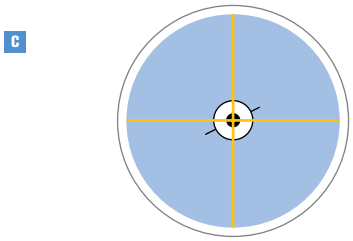
For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.



Capture more light



Slews 3° per second *Slews 7° per second*



The easiest alignment is no alignment

LX90-ACF highlights

A. Oversized Primary Mirror: *Captures the light competitive Schmidt-Cassegrains leave behind. With a primary mirror larger than the aperture of the objective or corrector lens, virtually no light gets lost on its way to the eyepiece. Enjoy brighter off-axis viewing and astrophotography with more fully-illuminated fields of view.*

B. Faster Slew Speeds: *At a sleepy three degrees per second, it takes competing Schmidt-Cassegrains a full minute to move from horizon-to-horizon. The LX90-ACF slews more than twice as fast as competing Schmidt-Cassegrain telescopes. Go for the speed. And see more objects all night long.*

C. Automatic Alignment: *The fastest and easiest way to align your telescope isn't by finding three bright objects. It's by finding no objects at all. You want easy? LX90-ACF scopes with AutoAlign™ are smart telescopes that know the night sky right out of the box.*

Choosing the LX90-ACF™ An easy decision.

If you're considering a telescope in this price range, you may know there are Schmidt-Cassegrains out there. Feel free to shop the market, but make no mistake; the Meade LX90-ACF is superior to any other Schmidt-Cassegrain telescope on the market today. Its accurate drive system and world-class advanced come-free optics annihilate competing scopes. If you don't feel like shopping forever before you buy, just decide on the LX90-ACF today. Choose an aperture that suits your needs, purchase a DSI imager for astrophotography and you're good to go. If you'd rather shop the competition, here are some things to look for.

Diffraction-limited Meade Advanced Coma-Free optics. Only Meade offers Ritchey-Chrétien performance at Schmidt-Cassegrain prices.

Star parties all over the world are raving about Meade optics. Dr. P. Clay Sherrod of the Arkansas Sky Observatory says, "I have to say that Meade optics have reached an amazingly sophisticated and consistent level of quality these past few years. I test optics, so I've noticed. Sadly, some companies out there are cutting corners on optics." You're buying a real instrument here. Buy the Meade LX90-ACF and you won't be sorry.

Accurate pointing and tracking.

AutoStar® is the standard among sky navigation systems. Sky & Telescope magazine called the LX90's tracking "excellent" and the pointing "100 percent accurate." Astrophotographer Steve Hamilton says his LX90 performed "flawlessly out-of-the box," adding that the "well-built mount also supports added accessories like guide scopes and counterweights without compromising the rock-solid stability required for long-exposure astrophotography."

Larger mirrors, faster motors, easier alignment.

Only Meade Schmidt-Cassegrains have oversized primary mirrors which are larger than the scope's listed aperture to capture all of the light. Further, Meade's faster slew speeds mean you'll spend more time observing and less time waiting on your telescope (not a bad benefit in sub-freezing weather). Finally, no matter what you hear about alignment, it doesn't get any easier than automatic. The LX90-ACF is so smart it knows the night sky right out-of-the-box. You don't have to teach it the night sky by manually slewing to three bright objects. It finds two alignment stars for you automatically.

The UHTC™ advantage.

Meade Ultra-High Transmission Coatings (UHTC) are an amazing scientific breakthrough that increase brightness by the equivalent of nearly an inch of aperture (depending on scope size). These coatings are exclusive to Meade and make a real difference over competing scopes. Image brightness is increased by 15% over standard coatings (see pg. 68).

Adding on to your LX90-ACF.

Your LX90-ACF is the perfect foundation for a lifetime of exploration. See pages 116-143 for additional accessories that will help your scope grow with you for years to come.

2"

4"

6"

8"

Understanding Aperture

An astrophotograph and a look through a telescope both inspire wonder. But in different ways. Due to the natural limitations of the human eye, a long-exposure astrophotograph of the Great Orion Nebula (M42) will be infinitely more detailed and colorful than what you can possibly see through the telescope's eyepiece.

Despite this truth, no photograph can compare with the experience of standing under a clear sky and looking into the heart of a star factory 1,500 light years away with your own eyes. After all, you are witnessing creation. It's sort of like comparing a photo of the Grand Canyon to actually going there.

Depending on the steadiness of the atmosphere, the darkness of your location, and how dark-adapted your eyes are, a large scope will turn distant galaxies, star clusters, nebulas and planets into truly magnificent sights you will never forget.

The larger the aperture, the brighter and higher resolution your image.

Aperture is about gathering light. Period. The human eye can only gather as much light as can squeeze through the pupil of your eye. Not much. So the real purpose of a telescope is not magnification—it's gathering more light. The bigger the aperture, the brighter the image. You won't enjoy looking at a dim object, no matter how big you make it. That's why any experienced astronomer will tell you aperture is everything.

As a general rule, an 8-inch telescope has four times the light gathering power of a 4-inch telescope. The photo-illustrations on this page were created to simulate the view through telescopes of different apertures at the same magnification. Examine them and it's easy to see why bigger is better.

The main caveat to the "bigger is better" rule is portability. Telescopes above 10" become increasingly more difficult to transport to your favorite dark sky location (not an issue if you plan on a home observatory or roll-off shed).

But the best scope for you is the one you will actually use. Most amateurs consider an 8" scope the perfect compromise between brightness and portability.

ASTROPHOTOGRAPHY: JASON WARE / M42-GREAT ORION NEBULA / LX400

10"

12"

14"

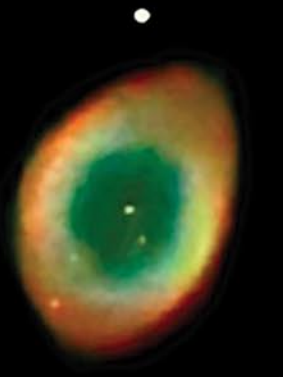
16"

"I decided to buy the LX90 based on all of the online reviews praising it as an excellent telescope for the money. I'm now taking photos with the Meade Deep Sky Imager and exploring wonders I never dreamed possible here in the glow of the Big Apple. Night after night, AutoStar reliably starts, aligns, and locks onto objects with perfect precision. I've never experienced a single glitch."

—MIKE SABINA

ASTROPHOTOGRAPHY: KEVIN MUENZLER / MOON / LX90

ED ROACH / SATURN / LX90



ERIC MADELEINE / M57 – RING NEBULA / LX90

LEE ZAGAR / JUPITER / LX90 / DSI

STEVE HAMILTON is a former naval aviator and astrophotographer who moderates seven different astronomy user groups and forums with over 6500 subscribers. He and his LX90 have produced an impressive gallery of astrophotographs. You can see some of them at www.meade.com.

My love of the night sky began as a Navy pilot. I used to fly back and forth all night on airborne early warning duty. We called it "drilling holes in the sky." The night sky was amazing so I'd take along binocs and enjoy the view. At 30,000 feet over the Eastern Pacific, the Milky Way is so bright; you'd swear you were looking at clouds out your window.

But I was helped along and encouraged by all these great imagers who would go, "Nice image Steve, but try this next time..." That's fantastic. I look back at my first few months in imaging and think, "where would I have been without that?"

Now I find myself answering a lot of the same questions that I asked when I was first starting out. It's just a natural progression where you start giving back to the community by helping others. I have to say that lately, when I'm not out taking pictures, half the joy of astronomy for me is the web community and the friends I've made there.

"ON A CLEAR NIGHT OVER A CALM SEA, IT'S HARD TO TELL WHERE THE SKY ENDS AND THE SEA BEGINS. It's like you're flying into one big sky"

These days my Meade LX90 and I spend a lot of time capturing images of the same deep sky objects I used to wonder at while flying over the ocean at night.

As soon as I got into astrophotography, the first thing I did was get on the Internet (go to Google and type in "astronomy" and you'll be there for the next ten years). I found the Yahoo groups pretty quickly and soon realized their value. There are all these patient people there who are willing to say, for the hundredth time, the same thing they've said to ninety-nine other people.

Astrophotography can have a steep learning curve.

My best friend these days is a guy in Washington State who I've never met. We got to know each other through the online groups and started talking on the phone. Now we talk every day, sometimes twice a day. And I have many other friends like him.

When I was a pilot, it was my goal to be the best. But I always knew there was somebody out there who was better. It's the same with astrophotography. That's what keeps everyone learning (and humble).

ASTROPHOTOGRAPHY: STEVE HAMILTON / M100 - SOMBRERO GALAXY / LX90 / DSI PRO

.05
MASTER
LX200-ACF™
SERIES

A legend is reborn. The world's top telescope gets an Advanced Coma-Free upgrade.

Rick Beno: *Retired engineer, Arizona Sky Village resident, LX200 owner.*

Level: *Married to astronomy.*

Mindset:
I'm in love with observing and imaging. I'm ready for the most exquisite views available. I like portability, but I may also be considering a large aperture permanent installation.

Mantra:
Sleep? What's sleep?

Priorities:
The finest optics. Unbelievably precise mechanics. Pinpoint tracking. A rugged and proven imaging platform.

Goals:
Share the wonders of the universe with family and friends. Take astrophotographs with the most widely used research telescope in the world. Perhaps make a discovery or two.

Also used by: Recruit, Hot Shot, Guru

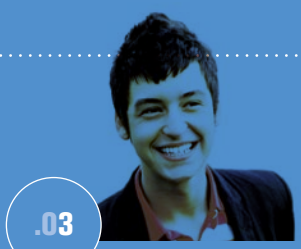
Performance:
The ultimate all-around instrument. Period.

Optical Design:
Advanced Coma-Free

Strengths:
Unique, industry-leading optical design. Crisp, flatter, field of view. Research-capable pointing and tracking. Huge user support network.

Buzz:
Sky & Telescope magazine says many feel Meade's Advanced CF optics are the biggest news in amateur telescopes "in more than a decade, maybe even a quarter century."

.01
RECRUIT



.03
HOT SHOT

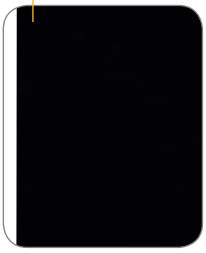
.06
GURU

.05 THE ACF REVOLUTION. A Hubble for your backyard.

LX200-ACF™ SERIES
ADVANCED COMA-FREE™

H. I.

C.



ZERO IMAGE-SHIFT MICROFOCUSER.
P. Clay Sherrod calls the Zero Image-Shift Microfocuser, "one of the nicest features ever put into a telescope."

"I have absolutely no hesitation in recommending the LX200 series. I can attest to the wonderful hands-off convenience and sheer fun of the motorized goto."

— Sky & Telescope magazine

"Advanced Coma-Free optics make the LX200 the best commercially available telescope you can buy for the money. There are people who will argue with that. But it's true."

— Dr. P. Clay Sherrod, Arkansas Sky Observatory

"Provides excellent performance in all critical areas while adding a level of technical luxury that is truly powerful and impressive."

— Sky & Telescope magazine

The most widely used research telescope on earth now comes with the most advanced optical system in space. Meade's LX200-ACF™ brings advanced coma-free optics within reach of aspiring astronomers everywhere. Nearly every observatory reflector in the world is a Ritchey-Chrétien, including NASA's Hubble Space telescope. Now you can have the performance the professionals expect. The LX200-ACF combines a revolutionary new optical system with the field-proven mechanical features of the original LX200 — the most widely used research-grade telescope in astronomy today.

Dr. Clay Sherrod says, "I personally know over 100 amateur astronomers using LX200s out-of-the-box (new ones and old ones) to provide research data to professionals around the world. One friend of mine used his 14" LX200 to discover binary asteroids using light curves. It's remarkable stuff that only the pros could do before."

But the LX200-ACF offers inspiring views for the recreational astronomer too. After decades of Schmidt-Cassegrain optical designs dominating the market, the LX200-ACF's evolution to patent-pending Advanced RC optics is the biggest news in astronomy since, well, the original LX200.

Advanced (f/10) Coma-Free Optics. The crisp, flatter, coma-free images of the RC optical design have long been coveted by astrophotographers and researchers (who sadly could not afford them). Such astronomers are now calling Meade's affordable Advanced Coma-Free optics "a gift," "perfect," "textbook," and "lovely." **A.**

Advanced Coma-Free Optics. Only Meade individually figures their Water White glass corrector lenses and Pyrex® primary and secondary mirrors for observatory-class light transmission, temperature stability, smoothness and image correction. Our optics lead the industry (see pg. 128). **B.**

Zero Image-Shift Microfocuser. Allows you to obtain precise focus with no image movement using four push-button speeds (fast, medium, slow, fine) on the AutoStar controller. Like this entire list, only Meade has it. **C.**

Primary Mirror Lock. Locks the primary mirror in place during long-exposure astrophotography. Eliminates mirror flop when crossing the meridian. **D.**

Smart Mount.™ Constantly refines pointing accuracy each time an object is centered and updated. Works in equatorial or altazimuth alignment. An indispensable feature for permanent installations (which Meade has more of than any other manufacturer). **E.**

Smart Drive.™ Provides Permanent Periodic Error Correction (PPEC) on both axes over the course of one or more training periods, thereby minimizing guiding corrections during long-exposure astrophotography (see pg. 92). **F.**

Sony® GPS Receiver Sensor. Automatically inputs precise time, date, and geographical location to help quickly and precisely align your telescope. Gets a satellite fix in just a few seconds despite obstructions like trees or buildings. **G.**

AutoAlign.™ Sky & Telescope says, "Simply turn it on and this telescope aligns itself to the sky all by itself, ready to show you thousands of objects at the push of a button." **H.**

AutoStar® II Controller. AutoStar on steroids. Features "Hot Keys" for quick access to over 150,000 celestial objects. Operate features like Smart Drive,™ Smart Mount,™ and the Zero Image-Shift Microfocuser with the push of a button. Download software updates, guided tours, and timely objects like satellites, comets and new discoveries free at Meade.com (see pg. 86). **I.**

Rock-Solid Field Tripod. Depending on aperture, scopes come with an adjustable Sturdy Field Tripod, Giant Field Tripod, or Super Giant Field Tripod to give you a solid, research-grade foundation. **J.**

UHTC.™ Our exotic multi-layer optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on the scope size). Objects appear dramatically brighter (see pg. 68). **K.**

LX200-ACF

LX200-ACF 8" #0810-60-02	LX200-ACF 10" #1010-60-02	LX200-ACF 12" #1210-60-02
8" Aperture (203mm)	10" Aperture (254mm)	12" Aperture (305mm)
Advanced Coma-Free	Advanced Coma-Free	Advanced Coma-Free
f/10 focal ratio (2000mm)	f/10 focal ratio (2500mm)	f/10 focal ratio (3048mm)
AutoStar II 150,000 object database	AutoStar II 150,000 object database	AutoStar II 150,000 object database
8 x 50mm viewfinder	8 x 50mm viewfinder	8 x 50mm viewfinder
26mm 5000 5-element Plössl eyepiece	26mm 5000 5-element Plössl eyepiece	26mm 5000 5-element Plössl eyepiece
UHTC™ Optical Coatings included	UHTC Optical Coatings included	UHTC Optical Coatings included
73 lbs total net weight	90 lbs total net weight	125 lbs total net weight
OTA dia 9.1", OTA length 16.75"	OTA dia 11.75", OTA length 22"	OTA dia 13.6", OTA length 25"
8 C batteries (user supplied)	8 C batteries (user supplied)	8 C batteries (user supplied)
Slew speed: 2x sidereal to 8°/sec in 9 increments	Slew speed: 2x sidereal to 8°/sec in 9 increments	Slew speed: 2x sidereal to 8°/sec in 9 increments
Guide Speed: .01 to 2x sidereal	Guide Speed: .01 to 2x sidereal	Guide Speed: .01 to 2x sidereal

LX200-ACF 14" #1410-60-02	LX200-ACF 16" on Super Giant Field Tripod #1610-60-02
14" Aperture (356mm)	16" Aperture (406mm)
Advanced Coma-Free	Advanced Coma-Free
f/10 focal ratio (3556mm)	f/10 focal ratio (4064mm)
AutoStar II (150,000 object database)	AutoStar II (150,000 object database)
8 x 50mm viewfinder	8 x 50mm viewfinder
26mm 5000 5-element Plössl eyepiece	26mm 5000 5-element Plössl eyepiece
UHTC Optical Coatings included	UHTC Optical Coatings included
166 lbs total net weight	360 lbs total net weight
OTA dia 15.8", OTA length 31"	OTA dia 17.5", OTA length 33"
8 C batteries (user supplied)	Batteries: not applicable
Slew speed: 2x sidereal to 8°/sec in 9 increments	Slew speed: 2x sidereal to 8°/sec in 9 increments
Guide Speed: .01 to 2x sidereal	Guide Speed: .01 to 2x sidereal

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.

16" LX200-ACF also available on permanent Altazimuth Pier.
#1610-60-02AZ

As an LX200-ACF™ owner, you're in good company.

Visit any star party in the world and you're more likely to see an LX200 than any other research-grade telescope. That's because ever since the introduction of the original LX200, Meade has listened to our most demanding customers and fine-tuned the LX200 into the world's most popular astronomical machine. After years as the best selling Schmidt-Cassegrain on earth, its evolution to Advanced Coma-Free optics means the LX200 will likely remain the world's most ubiquitous and sought after telescope. Buy one and you will join the ranks of famous comet discoverers, authors, and scientists all over the world.

Whether you are just beginning your journey of discovery (with no financial limitations), or are looking for a scope to do serious astronomical research, this is your scope. Whether you want to observe with the most user-friendly GoTo system available, or photograph distant galaxies and nebulas like a pro, this is your scope. Whether you want an 8" scope you can carry to your favorite dark sky location, or a 16" permanently mounted in a dome, this is your scope.

Corrector plate technology. The "advanced" in Advanced Coma-Free (ACF). A traditional RC telescope is an open tube reflector with expensive hyperbolic primary and secondary mirrors that produces coma-free images (see pg. 49). Meade engineers pioneered an ACF telescope by combining a hyperbolic secondary with a corrector-lens-and-spherical-primary combination that performs as one hyperbolic element. This closed tube, patent pending design has many advantages including better correction for astigmatism than a traditional Ritchey-Chrétien. As one beta-tester put it, "The images through these telescopes have all the characteristics of a traditional RC: Outstanding contrast and image quality. Pinpoint stars to the edges of the field. Finer planetary details. More structure from nebulous objects. More stars in the field of view (without the diffraction spikes inherent in the traditional RC design). These are incredible optics made affordable."

Accurate pointing and tracking. AutoStar® is the industry's standard GoTo technology. AutoStar® II goes even further with more than 150,000 deep sky objects, plus built-in features like Smart Mount™, Smart Drive™, High-Precision (HP) Pointing and more (see pg. 92). HP Pointing allows astrophotographers to achieve extremely fine-tuned centering of deep sky objects using nearby stars. Sky & Telescope magazine said, "Not only was it accurate, it was fast. The LX200 usually took no longer than 10 to 25 seconds to slew to and center an object...when [HP pointing] is activated... Meade promises a pointing accuracy of 1 arc-minute. I can confirm this amazing figure."

The freshest optical system in town. If it isn't clear by now, let us point out that Meade Advanced RC optics are the Next Big Thing in astronomy. The Schmidt-Cassegrain design has proven its value for decades. It has also been affordable for decades. But flatter-field, coma-free Advanced Coma-Frees are the future.

The UHTC™ Advantage. Meade Ultra-High Transmission Coatings (UHTC) are an amazing scientific breakthrough that increase brightness by up to 15% compared with standard coatings (see pg. 68).

Adding on to your LX200-ACF. Your LX200-ACF is the perfect foundation for a lifetime of exploration. See pages 130-143 for additional accessories that will help your scope grow with you for years to come.

UHTC™
ULTRA-HIGH TRANSMISSION COATINGS

UHTC™ INCREASES BRIGHTNESS BY UP TO A FULL INCH OF APERTURE.

Why optical coatings matter.

More light means brighter views of galaxies, star clusters and faint nebulas, plus greater details on planetary and lunar surfaces. More light is what telescopes are all about. So it's an important scientific fact that each time light reflects off a mirror or passes through a lens, some light is lost. In the case of a lens, up to 10% of the light is lost as it enters and exits each lens.

That's why most Meade telescopes now include proprietary Ultra-high transmission coatings (UHTC). Adding UHTC makes our telescopes dramatically brighter. It's equivalent to adding up to an inch of aperture (depending on scope size).

THE UHTC DIFFERENCE.

Over several years, Meade engineers pioneered the exotic series of multi-layered coatings known as UHTC. They are precisely designed to improve the performance of your telescope's optics. Unless you have a degree in optical engineering, all you need to know is that these advanced multi-coatings increase light transmission on average (across the visual spectrum) by about 15%. For example, Meade UHTC coatings will increase the image brightness of a 10" LX200-ACF by the equivalent of about 0.75 inch of aperture. That means higher performance for observers and astrophotographers alike.

You'll see brighter star clusters, more fine detail in nebulas, and more surface features on planets with UHTC than without. So go with a Meade telescope just for the UHTC. It's that good.

TOTAL LIGHT TRANSMISSION

EMISSIONS LINE	WAVE LENGTH (NM)	STANDARD COATING (%)	UHTC (%)	BRIGHTNESS INCREASE
HYDROGEN-ALPHA (HA)	656	76.7	88.46	15.33%
HYDROGEN-BETA (HB)	486	76.8	89.22	16.17%
OXYGEN III	496	77.6	89.78	15.7%
OXYGEN III	501	77.9	88.98	15.51%
HELIUM II	469	75	87.63	16.84%
HELIUM I	588	79.2	90.1	13.76%
NITROGEN II	655	76.7	88.5	15.38%
NITROGEN II	658	76.6	88.39	15.39%
SULFUR II	673	75.7	87.79	15.97%

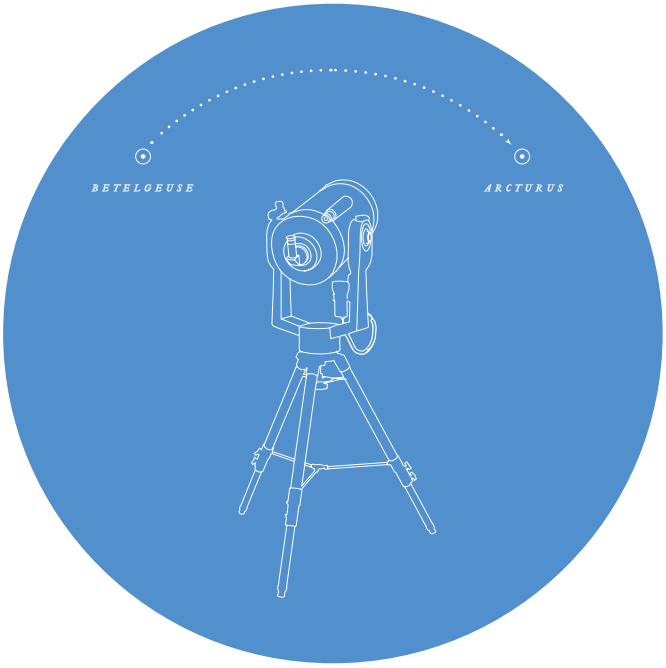
ASTROPHOTOGRAPHY: MARK DE REGT / M13 - HERCULES CLUSTER / LX400

UHTC mirror coatings include aluminum enhanced with a complex multiple-layer stack of titanium dioxide and silicon dioxide. UHTC lens coatings include multiple layers of aluminum oxide, titanium dioxide and magnesium fluoride. No, there will not be a test.

Faster slew speeds

AT 3:00 A.M. IN THE MIDDLE OF WINTER, AN EXTRA 60 SECONDS FEELS LIKE AN ETERNITY.

At a sleepy three degrees per second, it takes competing telescopes a full minute to move from horizon to horizon. Yawn. That's why slew speeds on Meade LX90-ACF™, LX200-ACF™, and LX400-ACF™ telescopes are two to three times faster than the competition. When it's cold and dark, or for that matter just late, those extra star-gazing seconds really add up. Thanks to faster alignment and faster GoTo slewing, a Meade telescope will show you two to three times more objects over the course of an evening. Not that it's a race. We just think you'd rather watch the universe in motion than your telescope in motion.



DO YOU WANT THE TRIP TO TAKE 40 SECONDS OR 14?

"NOT ONLY WAS IT ACCURATE, IT WAS FAST. THE LX200 USUALLY TOOK NO LONGER THAN 10 TO 25 SECONDS TO SLEW TO AND CENTER AN OBJECT."

–SKY & TELESCOPE MAGAZINE

SLEW SPEED COMPARISONS

SLEW SPEED	DEGREES PER SECOND	HORIZON-HORIZON (SECONDS)
MEADE LX90-ACF	7	25
MEADE LX200-ACF	8	23
MEADE LX400-ACF	8	23

SHIFTING SPEEDS.

Variable speeds let you GoTo objects at maximum speed then select a slower speed to fine tune placement for astrophotography or scientific measurements. LX90-ACF scopes have 9 variable speeds. LX200-ACF and LX400-ACF models offer 185 different speeds!

Dr. P. Clay Sherrod ("Dr. Clay" to astronomers everywhere) founded the Arkansas Sky Observatory in 1971. He is a widely respected scientific researcher, beta tester, and critic of everyone's telescopes. Including ours.

JASON WARE / NGC 2237 & 2244 – ROSETTE CORE / LX400

Dr. Clay's love/hate relationship with telescope manufacturers is legendary.

His relationship with the new LX200-ACF appears to be love/love.

Q You've told us the 16" LX200-ACF is now your favorite telescope. Why? **A** It's really tough to talk about the new ACF series without making its predecessor look bad. Schmidt-Cassegrains are great scopes and Meade has mastered the art of manufacturing them. But Meade took the Schmidt-Cassegrain design as far as it could go. Technology needs to evolve. The new Advanced Coma-Free design is a reflection of that. **Q** Where exactly did the Schmidt-Cassegrain design leave room for improvement? **A** Well, image fall-off for one. The average guy looking at the center of the field of view might never notice. But astrophotographers and experienced observers always knew there was light loss around the very edges of a Schmidt-Cassegrain's field of view. It could be as much as 30-35%. **Q** Does the new ACF design fix that? **A** Oh yes. I expected to be blown away. And I was. I'm not seeing the same image fall-off in the new ACF series at all. You can now use the entire field of view the telescope gives you. **Q** Can you give us an example? **A** When I do asteroid work, I use a program that measures the light and position of an asteroid using the relative brightness of other stars in the field of view. The more stars the better. Out in Leo (where there are relatively fewer stars) I was lucky to lock onto five or six stars in the field of view with any brand of Schmidt-Cassegrain. Peripheral stars were of little or no use. A week ago, I did an asteroid field test. Same aperture. Same exposure time. Same CCD imager. In the Schmidt-Cassegrain, I was only able to lock onto 9 stars. With the new Advanced Coma-Free optics, I was able to capture 26 stars. 26! Just because of the flatness and clarity of that field of view. **Q** What does that mean for the recreational astronomer? **A** These Advanced Coma-Frees are really a major step up in consumer telescope optics. Until now, there was not an affordable telescope for the amateur that provided a true research-quality field of view. For thousands less than traditional RC's, this new ACF optical design gives you an unprecedented view in terms of color, contrast, and image quality. From edge-to-edge. For CCD imaging, it will allow the astronomer to grow his hobby well into the future without feeling limited by his telescope's optics.

1956 • Sees shooting star at summer camp

1960 • Names first scope "Echo"

1965 • Begins comet search. Calls it "CN3"

1972 • Graduates Acadia University (BA English)

1979 • Graduates Queen's University (MA English)

1980 • Gets 16" reflector, names it "Miranda"

1983 • Aids in discovery of four more Comets

1984 • Discovers First Comet (Comet Levy-Rudenko)

1987 • Discovers two more Comets

1988 • Discovers another Comet

1990 • Discovers spectacular Comet Levy 1990c, C/1990K1

Getting a new telescope is like starting a new relationship. It's not just some bucket of bolts and glass. If you're willing, it can become your partner in exploring the universe.

I named my first telescope "Echo" back in 1960. And I still have it. In fact, it has a Coronado PST solar telescope piggybacked on it now and I use it for looking at the Sun in H-alpha all the time.

Years later, I got the first 12" Schmidt Camera Meade ever made. When we got it home, I noticed this massive thing would probably displace every other telescope in our observatory. When I was a teenager in Montreal, our astronomy club had this piggy bank called Obadiah. Whenever there was enough money, Obadiah, the observatory pig, would go shopping for

"I GIVE EVERY TELESCOPE A NAME. BECAUSE PART OF THE MAJESTY OF THE SKY IS THE MAJESTY OF THE INSTRUMENT YOU VIEW IT WITH."

accessories. So when I saw that massive new 12" in place, I thought, "you are the observatory pig" and I named it Obadiah. Now Obadiah has been converted to CCD and is involved in a serious search for comets.

I'm never happier than when I'm outside, using one telescope to search for comets, while my other two scopes are doing their own searches automatically. I have music playing. I'm moving from field-to-field. And I can hear the motors of Obadiah and Esther (my 10" LX200 classic) moving to their next positions to take pictures in the pre-dawn sky. I love the way the motors hum. I love the speed at which these huge telescopes can climb up to the zenith and find their next objects. And I'm just amazed they do it all by themselves. They aren't people. But they do a lot of things people do.

Last spring, I went to New Orleans to help give away Meade scopes. On March 9th, 2006 we launched the National Sharing the Sky Foundation to help the next generation reach for the stars. I'd like to see a telescope in every backyard. And a name on every telescope.

1994 Discovers Comet Takamizawa-Levy
1994 Watches Comet he helped discover collide with Jupiter
1994 Grants 150 interviews in one month. (one with the U.S. Vice President)
1994-05 Is awarded 5 Honorary Doctorates
1997 Marries Wendee
1998 Is named Science Editor, Parade Magazine
2001 Gets 12" Schmidt Camera, Names it Obadiah
2005 Got 14" telescope, names it Flaire
2003-06 Discovers many asteroids with Tom Glinos and Wendee
2006 Launches "National Sharing the Sky Foundation"
Obadiah

David searches for comets with a Meade 12" Schmidt Camera, a 16" LX200GPS, and a 10" LX200 classic. He is very impressed with Meade's new LX400s and will add one to the family as soon as he can think of a suitable name.

"I purchased the LX200-ACF to image from my light-polluted home in Brisbane, Australia. The main reason I chose this scope was for the Advanced Coma-Free optics. I was previously using a competitor's 11" Schmidt-Cassegrain and have found the 10" LX200-ACF to be far superior in contrast, sharpness, and field flatness. I am delighted with the LX200-ACF and plan to enjoy many years of great imaging."

—TONY CORDARO / M20 - TRIFID NEBULA / LX200-ACF

MEADE

.06
GURU
LX400-ACF™
SERIES

Sky & Telescope magazine calls the LX400-ACF, "as revolutionary today as the Schmidt-Cassegrain was when it was introduced over 30 years ago..."

PETER LEWIS: *Small business owner, ultra-light pilot, LX400-ACF owner.*

Level: *As serious as it gets.*

Mindset:
I'm ready for the observatory-level research telescope of my dreams. I can't wait to image, explore, and discover with one of the most advanced telescopes ever made.

Mantra:
Live to explore.

Priorities:
Ritchey-Chretién-like performance I can afford. A flat field perfect for astrophotography. A scope that can handle large-chip CCD imaging. The most mechanically tricked-out, precise, and user-friendly mount on the market.

Goals:
Take astrophotographs worthy of publication. Contribute to scientific research. Share astronomy with family and friends. Participate in supernova, comet, and asteroid searches.

ALSO USED BY: FANATIC, MASTER, SPECIALIST

Performance:

Absolute state-of-the art system. Hands down.

Optical Design:

Advanced Coma-Free.

Strength:

Unparalleled crisp, flatter field of view. Observatory quality optics. Remote access via web or network. Fully-integrated turn-key system.

Buzz:

Sky & Telescope calls the LX400 "the most electronically sophisticated mass-market telescope ever made."

.04 FANATIC

.05 MASTER

.06 SPECIALIST

.06

OBSERVATORY CLASS. For the pro in all of us.

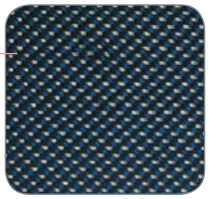
LX400-ACF™
ADVANCED COMA-FREE

T.

E. F. I. L. U.

R.

O.



Carbon fiber tube

"The LX400-ACF does indeed perform like a Ritchey-Chrétien. The difference between the off-axis images (compared to a Schmidt-Cassegrain) was dramatic to say the least."

— Sky & Telescope magazine

"Out of the box the scope had the most responsive declination guiding that I have ever experienced with a mass-market telescope."

— Sky & Telescope magazine

"The scope is a quantum leap above conventional Schmidt-Cassegrains. It approaches the performance of telescopes that cost five or six times as much."

— Jason Ware, Astrophotographer

Imagine you're a seasoned astrophotographer saving up for the fast f-ratio, wide-field, coma-free, custom telescope of a lifetime. One that can handle the largest CCD chips. One with state-of-the-art optics and mechanics. One that is praised as "approaching perfection" by industry critics and astronomers alike. Suddenly you find out your telescope is available for one-fifth of what you thought—and you won't have to wait six months for it to be built. What would you do? You'd buy one.

Sky & Telescope Magazine says the LX400-ACF "fills a significant gap that existed between similar aperture Schmidt-Cassegrains and custom-made Ritchey-Chrétien reflectors." Until now, the only systems comparable to the LX400-ACF were custom-made and had to be pieced together with components from different vendors. To deliver a comparable research-grade system, fully integrated, out-of-the-box, would be a grand achievement at half the price. At less than one-third of the price, it's a miracle. That explains why the LX400-ACF won a 2005 "Best of What's New Award" from Popular Science Magazine.

Sky & Telescope's glowing review ended with this thought: "Some hobbyists mistakenly believe that a product review without equal doses of praise and criticism is biased or unbalanced. Truth is, I can't find many negative things to say about the LX400-ACF...the LX400-ACF is a winner."

Patent-Pending (f/8) Advanced Coma-Free optics. Astrophotographer Jason Ware says "the LX400-ACF is a huge jump [over the Schmidt-Cassegrain] as far as sharpness of image, flatness of field, and color." The fast (f/8) Advanced Coma-Free design produces a large, coma-free field of view from edge-to-edge. The corrector plate reduces astigmatism inherent in the traditional RC design (see pg. 49). **A.**

Legendary Diffraction-limited optics. Only Meade individually figures their Water White glass corrector lenses and Pyrex® primary and secondary mirrors in our own plant in Mexico for observatory-class light transmission, temperature stability, smoothness and image correction. Advanced Coma-Free Optics are Meade's very best. And our optics lead the industry (see pg. 128). **B.**

Laser-Aligned, Fixed Oversized Primary Mirror. Laser aligned to the true optical path, then bonded in place, the mirror is fixed but literally floats on neoprene rubber seals. This results in zero stress to the glass and no distortion to the optics. **C.**

Electronic Front Focusing System. Patent-pending digital system electronically moves the entire front cell (corrector lens and secondary) in precise increments as fine as 1/1000 of a millimeter. A fixed primary means no image shift or focus backlash. Sky & Telescope says, "I've never used an electric focusing system that I liked more." **D.**

Nine Focus Position Presets. Customize up to nine perfect focus settings for moving from eyepiece to eyepiece, camera to camera, or observer to observer. Recall preset positions with the touch of a few buttons. **E.**

Electronic Collimation. The very best astrophotographs come from well-collimated (aligned) optics. The LX400-ACF's unique collimation process is so easy that you can collimate in just seconds with simple up-down/left-right buttons on the AutoStar® II controller. **F.**

Built-In Anti-Dew Heater. A unique heating coil is affixed to the outside edge of the corrector lens. Temperature is adjusted via the AutoStar II controller. Uses a fraction of the energy of aftermarket anti-dew heaters. Sky & Telescope says it "worked exceptionally well." **G.**

Sony® GPS Receiver Sensor. Automatically inputs exact time, date, and geographical location to help quickly and precisely align your telescope. Gets a satellite fix in seconds despite obstructions like trees or buildings. **H.**

I. **AutoAlign™.** Automatically aligns your scope to the night sky. Sky & Telescope says, "Working with the LX400-ACF was a very pleasant out-of-the-box experience. In a perfect world all products would be like this..."

J. **Smart Drive™.** Provides Permanent Periodic Error Correction (PPEC) on both axes over the course of one or more training periods, thereby minimizing guiding corrections during long-exposure astrophotography.

K. **Smart Mount™.** Constantly refines pointing accuracy each time an object is centered and updated. Works in equatorial or altazimuth alignment. An indispensable feature for permanent installations.

L. **AutoStar® II controller.** AutoStar on steroids. Features "Hot Keys" for quick access to over 180,000 celestial objects. Operate LX400-ACF features like Electronic Focusing and Collimation, Anti-Dew Heater, Smart Drive and Smart Mount. Download software updates, guided tours, and timely objects like comets and new discoveries free at Meade.com (see pg. 86).

M. **MAXMOUNT Tripod.** See Section 06 (page 88).

N. **Computer-Optimized Baffling.** Baffles on the primary and secondary mirror are computer-optimized to provide high contrast images by preventing stray light rays from reaching the focal plane.

O. **Carbon Fiber and Kevlar Optical Tube.** This uniquely strong, yet light-weight material has thermal characteristics ideal for astrophotography. The tube resists expansion and contraction as temperature rises and falls. So LX400-ACF optics stay in focus even during the longest exposures.

P. **UHTC.™** Our exotic optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on scope size). Objects appear dramatically brighter (see pg. 68).

Q. **Internal Optics and Mechanics.** Fork arms are longer and stronger. 10", 12", and 14" telescopes can reach 90° declination on a wedge, allowing you to reach the horizon. Longer fork arms also allow more back clearance so you can image all the way to the pole with most cameras. An OTA fan accelerates cool down so your optics will acclimate quicker to the ambient temperature.

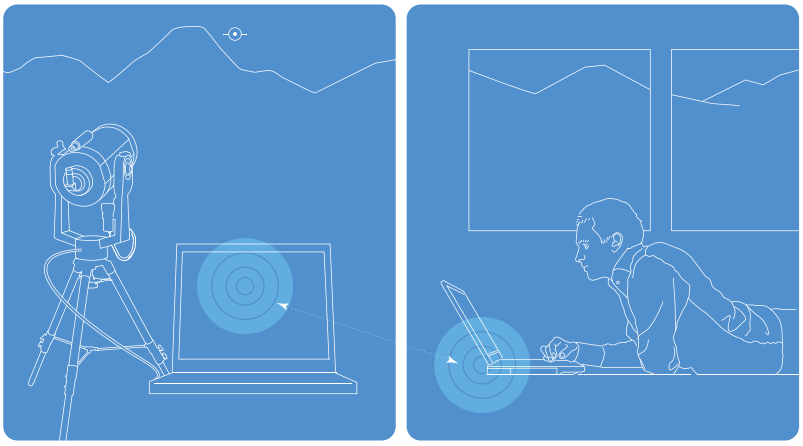
R. **Multi-Port Control Panels.** The first telescope to feature a powered, three port high speed USB 2.0 hub. Separate control panels are positioned on both the drive base and rear cell of the OTA, so you can plug equipment like the AutoStar® II and the Deep Sky Imager™ directly into the OTA control panel to avoid cord wrap and tangle.

S. **Series 5000™ 2" Ultra Wide Angle Eyepiece.** 24mm eyepiece gives you the ultimate in eyepiece design. It delivers extremely high-resolution, contrast and sharpness all the way across an astounding 82° apparent field of view. Several different types of exotic glass are combined to give you the highest possible level of optical performance.

T. **AutoStar Suite™ Software.** Easy-to-use planetarium software allows you to see what's in the sky tonight. Plan observing sessions, print star charts, take astrophotographs or control your telescope from your PC (windows only).

U. **Remote Control Access.** The Enhanced LX400-ACF AutoStar Suite lets you come in from the cold and operate your telescope. You can set-up, control, and image like the pros from the comfort of your home office or even across country via the web.

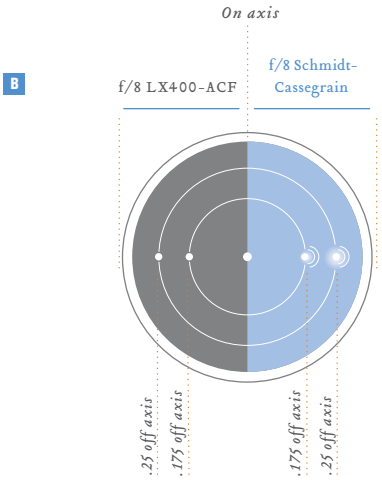
A



LX400-ACF™ highlights

A. *The remote control observatory. Control your telescope from the comfort of your home, office, or even out-of-town with Meade's completely integrated AutoStar® II and LX400-ACF software systems. Access the computer that controls your telescope via network or Web access. Work like the pros, imaging whenever the weather, your schedule, and the universe align. With an LX400-ACF, you have your own remotely controlled observatory. Just set-up, connect, control, and image. AutoStar II makes it easy.*

B



B. *Perfect star images edge-to-edge. This professional level of off-axis performance was previously unavailable without spending more than three times the cost of an LX400-ACF.*

A success story fresh off the drawing board.

On March 26, 2002, Meade engineers set out to design a telescope with the most sophisticated optics, mechanics and electronics ever manufactured. If successful, the new scope would make observatory-level performance accessible to any serious astronomer or astrophotographer who desired it.

The 2006 LX400-ACF review in Sky & Telescope magazine said, "Meade claimed that one of its goals in developing the LX400-ACF line was to address various problems... that had dogged Schmidt-Cassegrains for more than 30 years. My feeling is that the company really has succeeded. Even when you judge it by the demanding criteria imposed by long-exposure imaging, the LX400-ACF is a winner."

Thinking beyond the Schmidt-Cassegrain.

Like NASA's Hubble Space Telescope, almost every professional observatory reflector in the world today uses a Coma-Free optical system. So it's no surprise that Meade engineers chose their Advanced Coma-Free design as the ideal optical configuration. This design improves on the traditional Ritchey-Chrétien design by adding a corrector lens to reduce astigmatism and diffraction spikes. For details see pg. 49. Then Meade engineers designed the LX400-ACF's mechanical and electronic systems from a clean slate (and thousands of amateur astronomer suggestions) to ensure it would become the most capable telescope in company history.

For serious research or fast, flatter, wide-field fun.

Recognizing the growing popularity of astrophotography, Meade chose a fast (f/8) focal ratio for the LX400-ACF series. This offers astrophotographers optimal speed in combination with a large, coma-free field of view (from edge-to-edge). Despite all of its visual and technical prowess, an LX400-ACF is just plain fun. Sky & Telescope says, "One aspect of the LX400-ACF that repeatedly amazed me [was] ease of use. Working with the LX400-ACF was a very pleasant out-of-the box experience. In a perfect world all products would be like this..."

Observatory-precise pointing and tracking.

The LX400-ACF's mechanical systems are complex. But what really matters is results. Sky & Telescope described a first experience autoguiding the LX400-ACF with a large format CCD camera. After a few initial set-up procedures... "the numbers looked good, so I tried a 5-minute autoguiding exposure. The image was perfect... I went on to make 15 more 5-minute exposures that night, and every one was a keeper!"

We thought of everything. Then made it electronic.

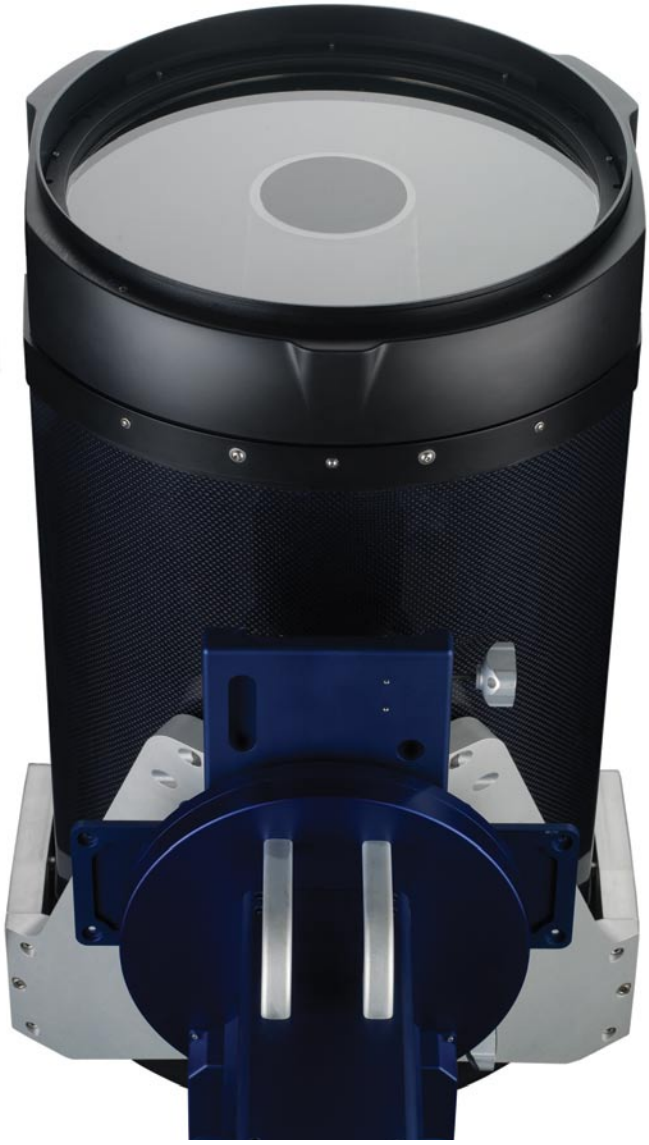
From electronic focusing and collimation, to electronic drive-training and sensor calibration, from electronic temperature controls to electronic High-Precision Pointing (HPP), the LX400-ACF can help you do anything from imaging Saturn to imaging an 18th magnitude galaxy too dim to visually confirm before you take the shot (see pgs. 92, 93).

Adding on to your LX400-ACF.

Your LX400-ACF is absolutely the telescope of a lifetime. See pgs. 130-143 for additional accessories that will help your scope grow with you for years to come.

LX400-ACF 16" MAX MOUNT On Tripod: #1608-MAX-01	LX400-ACF 20" MAX MOUNT On Tripod: #2008-MAX-01
16" (406.4mm) aperture	20" (508mm) aperture
Advanced Coma-Free	Advanced Coma-Free
f/8 focal ratio (3251mm)	f/8 focal ratio (4046mm)
AutoStar II (180,000 object database)	AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver	16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece	Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included	UHTC Optical Coatings included
643 lbs net weight (mount and tripod)	670 lbs net weight (mount and tripod)
12 VDC, 5 amp power supply required	12 VDC, 5 amp power supply required
Slew Speed: .01 sidereal to 2°/sec in 115 increments	Slew Speed: .01 sidereal to 2°/sec in 115 increments
Guide Speeds: 0x and 2x	Guide Speeds: 0x and 2x
16" on MAX w/AZ Pier: #1608-MAX-02	20" on MAX w/AZ Pier: #2008-MAX-02

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.



150,000 objects and an equally staggering number of features.

AutoStar II's database of over 150,000 deep sky treasures (over 180,000 in LX400-ACF scopes) is by far the largest collection of targets in the commercial telescope industry. It's enough material for a lifetime of deep space study for even the most serious astronomer. But the AutoStar II controller also supports observatory-class LX200-ACF™ and LX400-ACF™ functions that help you make the most of that extensive database.

Just a handful of those features include: GoTo capability to any RA and Dec. coordinates, a 200-object user-defined library, custom-guided tours, Smart Drive™ permanent periodic error correction, electronic focus control, 185 different slew speeds, 7 alignment modes, and any of 2000 custom tracking rates. Plus AutoStar II is fully upgradable online, with custom tours, satellite tracking info, and new capabilities available on a regular basis.

"AutoStar II makes my other research-grade systems feel like going back to the dinosaur era, you know, hitting the telescope with a bone to make it move."

– Dr. P. Clay Sherrod

Precise mechanical control at your fingertips.

The AutoStar II controller is your push-button portal to astrophotography essentials like Smart Mount™ and Smart Drive™ (see pg.92), which have helped the LX200-ACF series become the most widely used astrophotography platform in astronomy today. The relatively new LX400-ACF series offers even more advanced features via AutoStar II; like digital focusing, 9 focus presets, and electronic collimation (see pg. 93). The LX400-ACF's AutoStar II database is even expanded to over 180,000 objects.

AutoStar II Database

OBJECTS	SOURCE
5,386	Galaxies, nebulas, and star clusters. The complete Index Catalog (IC).
7,840	Galaxies, nebulas, and star clusters. The complete New General Catalog (NGC).
109	Best objects for small telescopes from the Caldwell Catalog.
110	Messier objects. The complete Messier catalog.
26	Earth-orbiting satellites.
9	Planets. All the major ones from Mercury to dwarf planet Pluto.
12,940	Uppsala Galaxy Catalog.
12,939	Morphological Catalog of Galaxies.
29,364	General Catalog of Variable Stars and other variable stars.
42,277	SAO and Hipparcos Star Catalogs.
21,160	Draper Star Catalog (HD).
8,977	Yale Bright Star Catalog (HR).
1,055	Large Bright Quasars Survey (LBQS).
4,313	Named Objects.
400	Herschel Catalog.
2,712	Abell Catalog of Galaxy Clusters.
635	Arp Catalog of Irregular Galaxies.
1,754	Lunar features.
120	Asteroids and Comets.
88	Centroids of the constellations.
492	Solar/Lunar eclipses, meteor showers.

Wireless AutoStar® II

Cut the cord. And still connect with the universe. Sometimes a few extra steps of freedom amount to a quantum leap. Whether you're busy at your laptop taking astrophotographs, or just sharing the view with a friend, the Wireless AutoStar II lets you control your telescope with unprecedented freedom. Available as an accessory (see pg. 143).

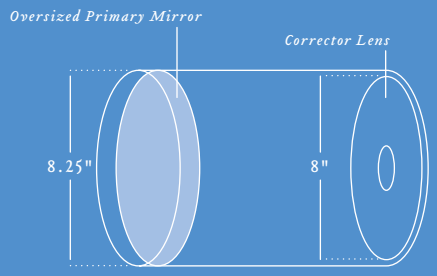
MEADE'S OVERSIZED PRIMARY MIRRORS CAPTURE THE LOST LIGHT.

Light that travels millions or even billions of years to get here is precious stuff. To have a ray of light spend that much time traveling across the universe only to enter your telescope and miss the primary mirror is a shame. That's why Meade Instruments designs and manufactures the primary mirrors in its compound telescopes in diameters larger than their listed aperture—something no other commercial manufacturer does. This yields a wider field of view than competing standard-sized primary mirrors. In fact, Meade Advanced Coma-Free systems have off-axis field illuminations about 10% brighter than competing scopes. Meade believes you should see the light other telescopes leave behind.

MEADE PRIMARY MIRROR SIZES

MAKSUTOV-CASSEGRAINS		
LISTED APERTURE	90mm	125mm
PRIMARY MIRROR SIZE	96mm	138mm

ADVANCED COMA-FREE					
LISTED APERTURE	8"	10"	12"	14"	16"
PRIMARY MIRROR SIZE	8.25"	10.38"	12.38"	14.57"	16.38"



Meade compound scopes are 10% brighter off-axis than competing scopes.

LIGHT IS PRECIOUS STUFF.

From precise manufacturing methods to advanced optical coatings, Meade does all it can to ensure that light from distant objects doesn't make the long journey across time and space only to enter your telescope and never make it to your eyepiece. Oversized primary mirrors are an innovation so simple, we can't believe we're the only company that produces them. A 10% increase in off-axis illumination may not sound like much to the novice. But to the passionate, it's priceless fossil light.

.06

MAX ROBOTIC MOUNT. The last mount you'll ever need.

MAX MOUNT™
GERMAN
EQUATORIAL
MOUNT

H.

"MAX is unquestionably the finest German Equatorial Mount I have ever used. It delivered my dream of a professional quality observatory at home."

— John Hoot, Astronomer/Beta-tester

"Views through the 20" are absolutely breathtaking. The spiral arms of M51 were extremely bright and clearly defined. It very easily equaled my 25" f/5 reflector."

— Jack Newton, Astrophotographer

"The MAX is like a German Tank crafted by swiss watchmakers. No matter the payload, it glides from target to target with pinpoint accuracy."

— John Hoot, Astronomer/Beta-tester

Behold Meade's MAX German Equatorial Mount. A behemoth instrument in a class all its own. In a single, bold stroke, Meade has given the world a production mount that competes with the most expensive custom installations. Now any school or university (and many private individuals) can afford a true professional quality observatory mount.

Even with its massive payload capacity (500 lbs including counterweights), the Max tracks as smoothly and accurately as if it were carrying a feather. Astronomer John Hoot says, "I can shoot two-minute exposures without guiding and get pinpoint stars." The MAX's multiple attachment points let you load it up with wide-field astrographs, video indexing cameras, DSLRs, etc. without affecting tracking accuracy.

Outfit your state-of-the-art MAX Mount™ with a 16" or 20" LX400-ACF Advanced Coma-Free Optical Tube Assembly and you have an observing system that rivals custom installations that cost three to five times more. It's the first fully integrated system of its kind and, as one astrophotographer put it, "the Max is a gift to the astronomical community."

Aperture. Aperture. Aperture. 16" and 20" available. See pg. 78-99 for details on Meade's revolutionary LX400-ACF Advanced Coma-Free optics. The MAX Mount is available with 16" and 20" (half-meter) versions of this revolutionary new flat-field instrument—enough aperture for serious astronomical research. A well-sited 20" LX400-ACF will reach magnitude 19 with a Meade Deep Sky Imager™ in less than 1 minute. **A.**

500 Pound Total Capacity. The MAX blows away every other production mount on the market. This means you can add guide scopes, wide-field instruments, spectrographs, heavy cameras and coolers to your mount with confidence. **B.**

13.625" Dual Drive Gears with 652 Teeth. More teeth means more torque. And because the worm turns more quickly, periodic error decreases in proportion to the tooth count. MAX has roughly half the periodic error of competing 360-tooth mounts. **C.**

Periodic Error As Low As 2 Arc Seconds. Periodic error of about 2 arc seconds is better than the seeing condition on most nights. For serious astrophotographers, snap shooters, supernova hunters, asteroid researchers, variable star studies and other research projects, the MAX Mount is point-and-shoot. GoTo pointing accuracy with SmartMount™ is sub arc minute. **D.**

Interchangeable Quick Release Dovetail Plates. Swapping scopes takes only about two minutes. Simply slew scope down for access, loosen two handles (no tools required), swap scopes, then use MAX's computer-assisted balancing and quick release counterweights to get back to work in a hurry without losing alignment. Compare that to competing mounts with their milled and drilled plates, Allen wrenches, and lots of time. **E.**

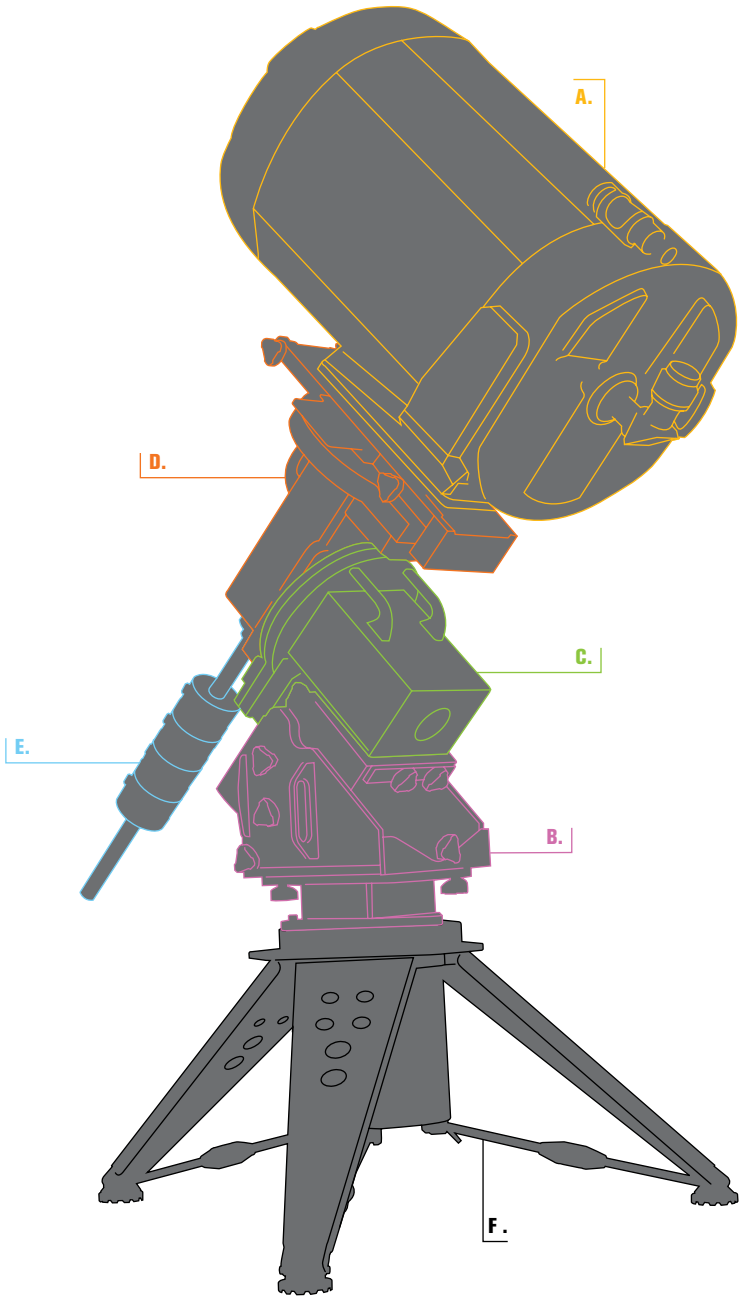
Internal Cabling. The MAX puts all the controls you need for your OTA and modern cameras up on the saddle plate to allow a cable-free installation of most instruments. Competing mounts make you get out your fish tape and pull cables through the RA and DEC axes yourself (or call an electrician). **F.**

0-90° Latitude. MAX Mounts can be used anywhere on earth from Pole to Pole. No other maker of heavy-duty mounts can make this claim. **G.**

Expanded AutoStar Suite™ software with Network and Web Control. AutoStar Suite version 4.0 gives you a complete turnkey observatory control system at no added cost. Control your scope remotely via web browser from any remote PC, Macintosh, PDA or even cell phone without installing new software. Easily operate your scope anywhere from the classroom to the hotel room. **H.**

MAX MOUNT™ COMPONENTS. Massive. Modular. Mobile.

MAX MOUNT
GERMAN
EQUATORIAL
MOUNT



For a detailed MAX Mount Q & A, visit meade.com/maxmount/faqs.html

Specifications are subject to change without notice.

The MAX Mount's unique modular design allows two or three people to assemble (and/or transport) a mount twice the size of any previously available commercial mount. Because its components fit easily into a station wagon, SUV, minivan or small truck, the MAX represents the world's most portable permanent observatory (a very desirable contradiction in terms).

Massive Optical Tube Assembly. In recent years, Meade's 16" LX200-ACF on a fork mount has become the ubiquitous scope of choice for serious amateurs, colleges, and universities. The new MAX Mount means these same individuals and institutions can own an Advanced Coma-Free with either 16" or 20" of aperture (a full half-meter!). A search of astronomical literature indicates the vast majority of good science is produced by telescopes in the half-meter to one-meter class. **A.**

Pedestal Assembly. MAX's rock solid pedestal assembly represents the perfect marriage between stability and adjustability. Standard field adjustments can be made quickly and easily (without tools) with MAX's ergonomic adjustment knobs. The pedestal assembly can easily be configured to cover three altitude ranges without disassembly. This makes the MAX the only mount in its class that can operate anywhere on the planet. **B.**

Right Ascension Housing Assembly. The RA Housing mates to the Pedestal easily by sliding firmly into a 100 square inch dovetail block. When locked into place, this broad footprint assures your mount will operate as a single rigid block for accurate and repeatable pointing and tracking. The RA Housing contains Meade's proven AutoStar® II telescope control system and a massive 13.625" pitch diameter worm gear built to handle gigantic loads. **C.**

Declination Housing Assembly. The DEC Housing mates to the RA Housing using another huge dovetail block. When locked in place, the mount is one single rigid structure ready to point your instrument anywhere in the universe with phenomenal accuracy. The mount can cover the whole sky, tracking more than 6 degrees past the meridian (prime seeing area) without interference. In addition to quick-change dovetail plates for your primary OTA, generous wing mounts allow you to attach a variety of secondary instruments without interfering with MAX's "all sky" design. **D.**

Counterweights. MAX counterweights are beautifully crafted with sure locking, quick release buttons. Add MAX electronic balancing and you can balance your scope quickly and get back to work. **E.**

Tripod or Pier Assembly. The MAX tripod can be transported or permanently installed. Its wide stance will safely carry MAX's massive payload in all orientations. But it will still collapse down to a size that's easy to handle. Like the MAX, it sets up, knocks down, and adjusts without tools. The MAX pier is exclusively for permanent installations. It too can handle the MAX's payload in all orientations and withstand vibration. Pier height must be specified at time of order. **F.**

Other notable pointing and tracking features.

+ Computer-assisted squaring of your optical axis.
+ Photographic polar alignment eliminates the need for drift alignment.
+ No clutches or worm releases means no extra alignment, even if you switch instruments during an observing run.

Advanced Pointing and Tracking

EXHIBIT 9

OBSERVATORY–LEVEL PRECISION.

Smart Drive.™ Permanent Periodic Error Correction.
Meade's SmartDrive technology allows Permanent Periodic Error Correction (PPEC) on both axes that offers an observatory standard of precision of 5 arc seconds or less. Because no worm gear is perfect, no matter how precisely it is manufactured, small inconsistencies will always occur in the drive system of any telescope. Meade's Smart Drive allows you to train your telescope's software to automatically compensate for these tiny periodic errors in the worm/gear system. This will bring your telescope's tracking accuracy up to a level consistent with the world's top observatories. The programming is stored forever, independent of any power source, yet may be erased, updated or averaged with future programming if you choose.

High-Precision Pointing (HPP). Finding objects too faint to see.
This feature is most helpful to astrophotographers interested in imaging objects too faint to be confirmed with the naked eye. Or those who want to place an item dead center on a very small CCD chip. When you turn this feature on and ask the scope to slew to an object, the scope will first slew to a star right next to the object and ask you to center that star perfectly. The star is likely to be perfectly centered already (that's how accurate Meade telescopes are). But once you have confirmed the star's precise location, the scope will slew to the nearby deep sky object and place it exactly in the center of your field of view. For normal observing, this level of precision isn't necessary (a Meade scope will center objects anyway). But HPP gives you the confidence to kick off a two-hour long imaging sequence without even visually confirming a faint object's existence!

"Meade telescopes are designed for everyone from the casual visual observer to the most demanding scientific researcher, with the dedicated astrophotographer in the middle. No comparably priced scope will point or track better."

– John Hoot, San Clemente, CA

Smart Mount.™ Added accuracy for permanent installations.
By constantly refining pointing accuracy every time an object is centered and updated, Smart Mount helps targets fall in the center of the field of view or the CCD chip every time. Smart Mount is mostly a tool for people who do high-volume automated astronomy (such as supernova searches). Say, for example, you want your telescope to follow an imaging script and shoot pictures of various galaxies throughout the night unattended; Smart Mount ensures every galaxy will be dead center.

ASTROPHOTOGRAPHY: CHUCK DOMARAKI / NGC 6992 - VEIL NEBULA / DSI PRO II

Electronic Focus & Collimation

ELECTRONIC FRONT FOCUSING.

Try LX400-ACF focusing once and you'll never go back.
Focusing the LX400-ACF is radically different from traditional telescopes. The first thing you need to know is that the entire front cell (lens and secondary) moves to focus the telescope, not the primary mirror. This single, patent-pending innovation eliminates any trace of image shift and refocusing that has dogged other optical designs like Schmidt-Cassegrains (of all makes) for decades. To focus, the front cell is moved digitally by three encoder-controlled motors in increments as fine as 1/1000 of a millimeter. Focusing is easy with a single key press on the AutoStar® II controller. A digital readout of the focus position lets you see positions and repeat them for different eyepieces or camera set-ups. You can preset up to nine focus positions and repeat them at will.

Our new focusing system has its fans. Astrophotographer Jason Ware says, "Front focusing makes it very, very nice. I'll set up for the night, start imaging, and once my focus looks good, there are many nights I don't re-focus for the rest of the night. I'll move all over the sky and not have to re-focus." Sky & Telescope says, "Everything is done with internal motors; there are no add-on accessories. You operate everything from the hand control without ever touching the telescope. After spending a few minutes learning to operate the focusing system, I fell in love with it... The scope(s) I tested had almost no image shift as the focus direction was reversed. And there was no focus or image shift as the telescope was moved around the sky."

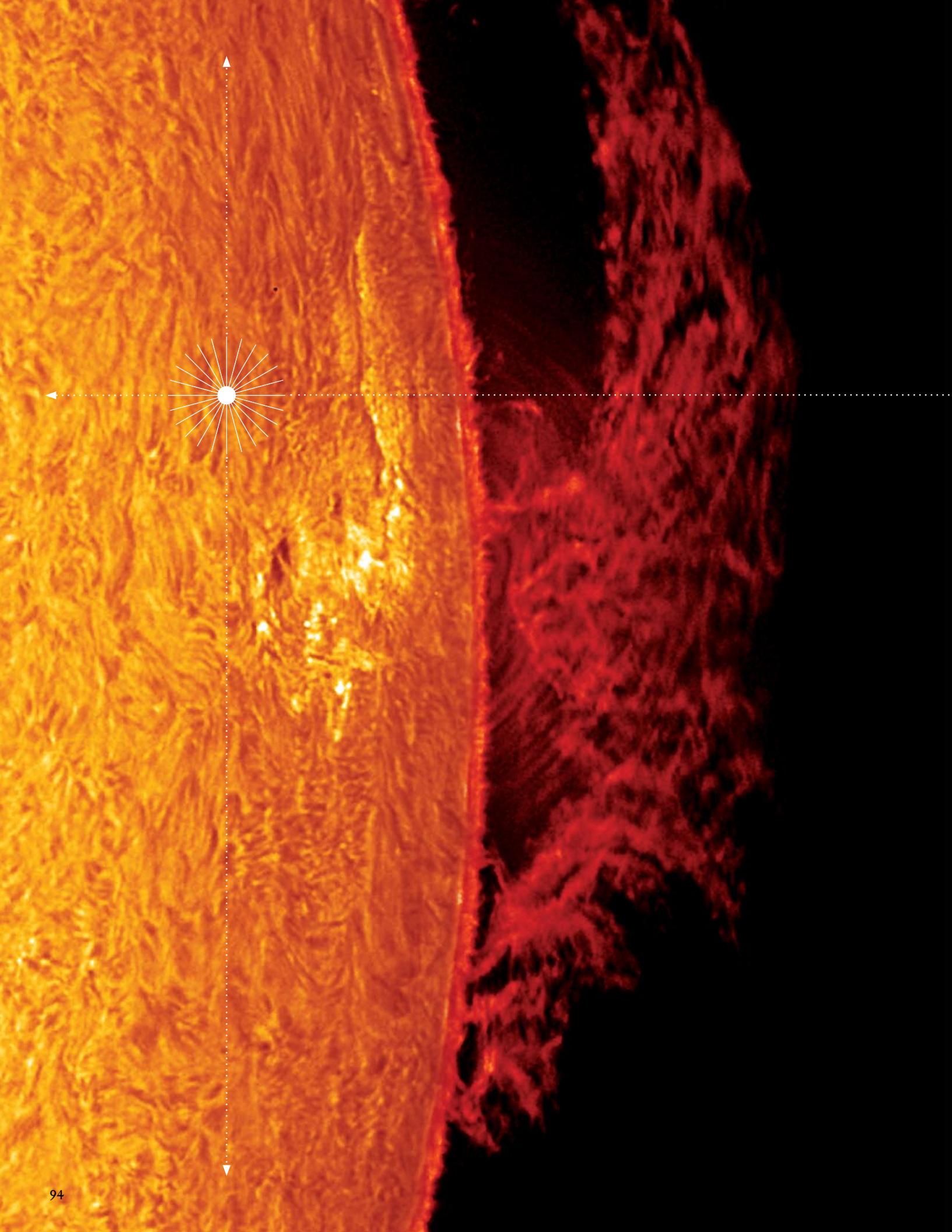
ELECTRONIC COLLIMATION.

Always essential. Now it's easy too.
Dr. P. Clay Sherrod says, "Perfect collimation [alignment] of optics is absolutely the key to great contrast and resolution with any compound telescope." Now the LX400-ACF makes collimation something you can do with the push of a button. Sky & Telescope says, "While I rarely needed to collimate the LX400-ACF during my months of testing, I found the system very easy-to-use. All the instructions for adjusting collimation are displayed on the hand control, so you don't have to refer to the manual." Indeed, collimation has never been easier. Sky & Telescope adds, "you don't ever have to worry about screwing up the collimation, since there's a default setting you can return to with the press of a button."

"As an imager the LX400-ACF really shines. The electric focuser is a dream to use."

– Astronomy Magazine

ASTROPHOTOGRAPHY: JASON WARE / M1 - CRAB NEBULA / LX400



"IN SHARING THE JOYS OF ASTRONOMY I'VE LEARNED TO EXPECT OOHS, AAHS, AND EVEN MORE COLORFUL LANGUAGE."

There are a lot of things that really move you in astronomy. More often than not, it's giving people their first chance to look through a telescope.

I teach astrophotography at our Bed and Breakfast. So I get to see the look on people's faces when they take their first astrophotograph. They absolutely shake with excitement. You get people who will write you a letter and say, "you've changed my life." One woman cried when she saw her photo of the Andromeda Galaxy.

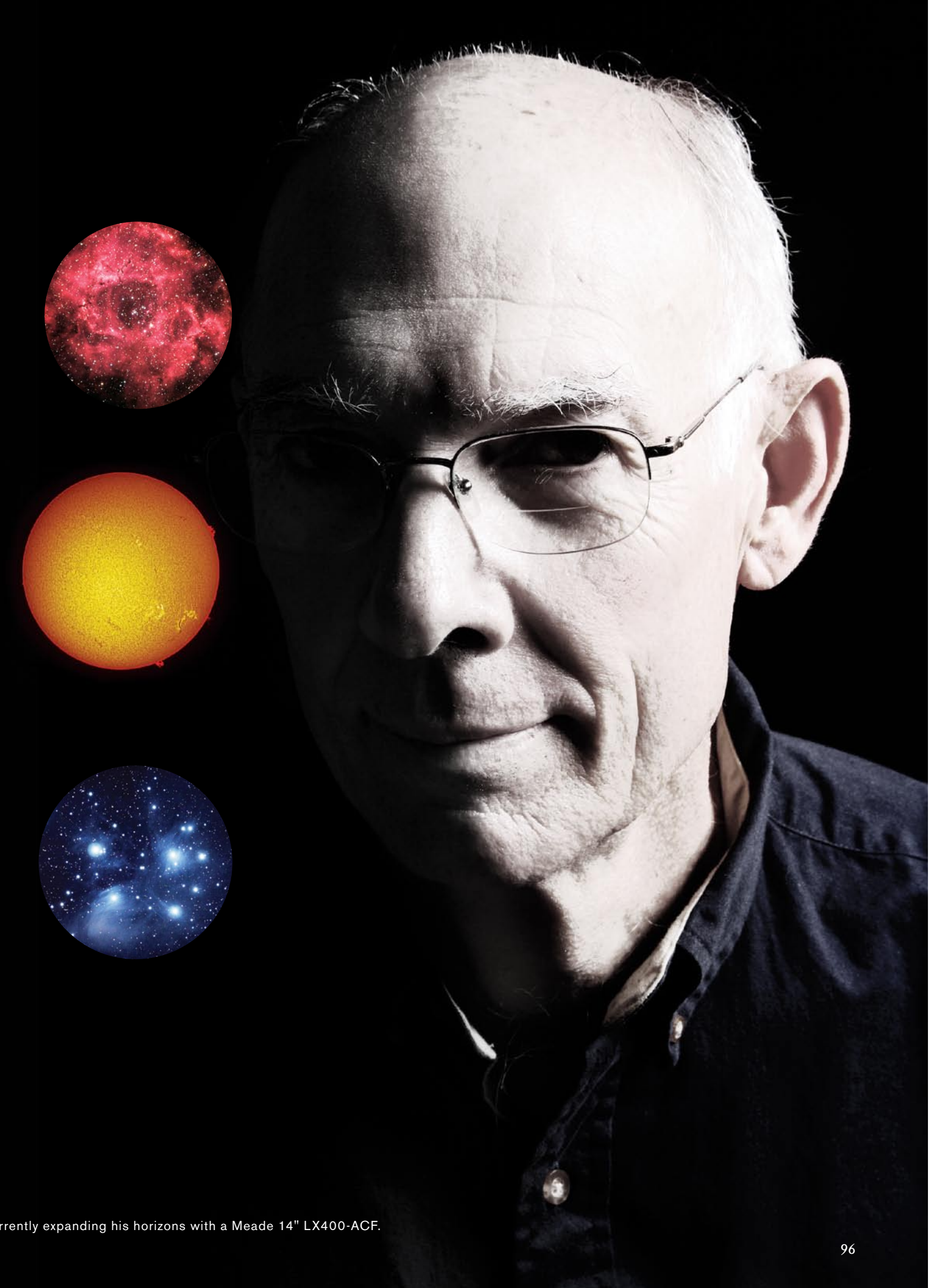
But even better things happen when I let people look through the eyepiece. One very young child, couldn't have been more than six or seven, came to our Observatory B&B with his parents. They were visiting from the U.K. He was up on the stepladder with Saturn in view. When he saw the rings, he hauled off and squealed out a swear word. It wasn't a very bad one. But it shocked the parents so that he gulped when he saw their reaction. The poor kid was just so excited. It does your heart wonders.

The greatest joy I've had was probably discovering my first supernova. Because at that moment, it hits you that you're going down in history with your name on an object. Since then, I've discovered 16 more. That opens the door to just about any observatory in the world. They know who I am from all these discoveries and welcome me with open arms. So I'm fulfilling my dream of contributing to science in a meaningful way.

But my first love is still teaching. We just can't do enough. I've always felt that someday many years from now, maybe some Senator will sign the check because Jack Newton showed him Saturn when he was a little boy. That would be payoff. Big time. We need that next generation of space telescopes up there.

Sometimes I wish I could have a few minutes at the eyepiece with every person in the world. Because that's what astronomy really comes down to: People and pure joy.

Jack has shot thousands of images with his two Meade 16" LX200s and is cu



rrently expanding his horizons with a Meade 14" LX400-ACF.

LX400-ACF™

90°

“THE FIRST TIME I SAW A GALAXY (that wasn’t a picture in National Geographic) I GOT A LUMP IN MY THROAT.”

Of course, then my wife looked in the telescope and said, “That’s pretty cool. How long are we going to be out here?” That’s typical for most people. I’m drawn to astronomy for the appreciation of what you’re looking at: A galaxy with a hundred billion stars, forty million light years away. But if you’re drawn to it for the visual beauty, astrophotography is your key to the hobby.

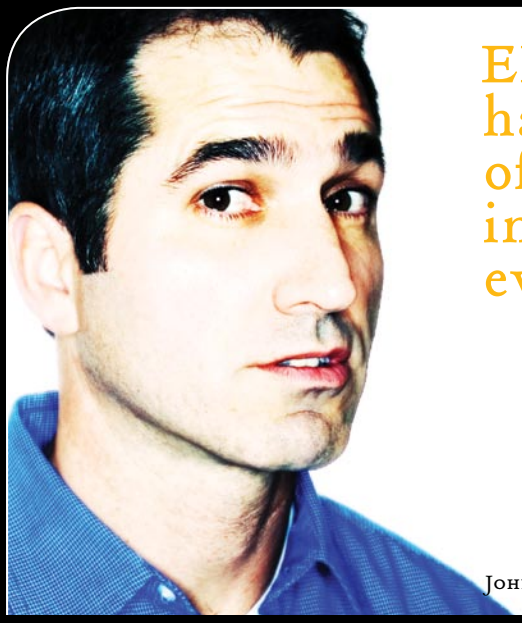
The total automation of the LX400-ACF makes astrophotography accessible to millions of regular people like me. I mean, you can do these 6-hour long exposures and still have a life. I’ll kick off a sequence and go do something else. The scope’s in my backyard working away, and I’m off playing in a hockey game. Or some nights I go to bed. I wake up and have a whole series of images to process the next day. Sometimes I check up on my scope’s progress remotely by doing a VNC session on my cell phone. It’s just phenomenal what amateurs are doing these days. I have these friends who are always saying, “Someday, I’m going to own a telescope.” Well there’s never been a better time.

— JASON WARE , ASTROPHOTOGRAPHER OPPOSITE PAGE / JASON WARE / M31 - ANDROMEDA GALAXY / MEADE 12" SCHMIDT CAMERA

JASON WARE / MOON / LX400-ACF

JASON WARE / M8 - LAGOON NEBULA / LX400-ACF

.07
SPECIALIST
Series 5000™ ED APO



ED APO Refractors have produced some of the most beautiful images of the heavens ever taken from Earth.

John Kinkead: *creative director, screenplay author, APO Refractor enthusiast.*

Level: *Seeking perfection.*

Mindset:
I enjoy observing the moon and planets in exquisite detail. I want to take gorgeous wide-field, high-contrast astrophotographs.

Mantra:
Only the best.

Priorities:
It's all about the view.

Goals:
Observe and take wide-field astrophotographs of objects like the moon, planets, double stars, nebulas, galaxies and clusters with incredible color, contrast and detail.

Also used by: Fanatic, Master, Guru.

Performance:

Excellent for wide-field deep sky astrophotography and visual observation of the moon, planets, double stars and clusters.

Optical Design:

Apochromatic Refractor (p.45)

Strengths:

Fast focal ratio. Lightweight.
Portable. Crisp. Clear. High contrast.

Buzz:

Avid astronomer John Hoot said the Meade Series 5000 ED APO "kicked the tail of my old semi-APO that cost twice as much."

.04 FANATIC

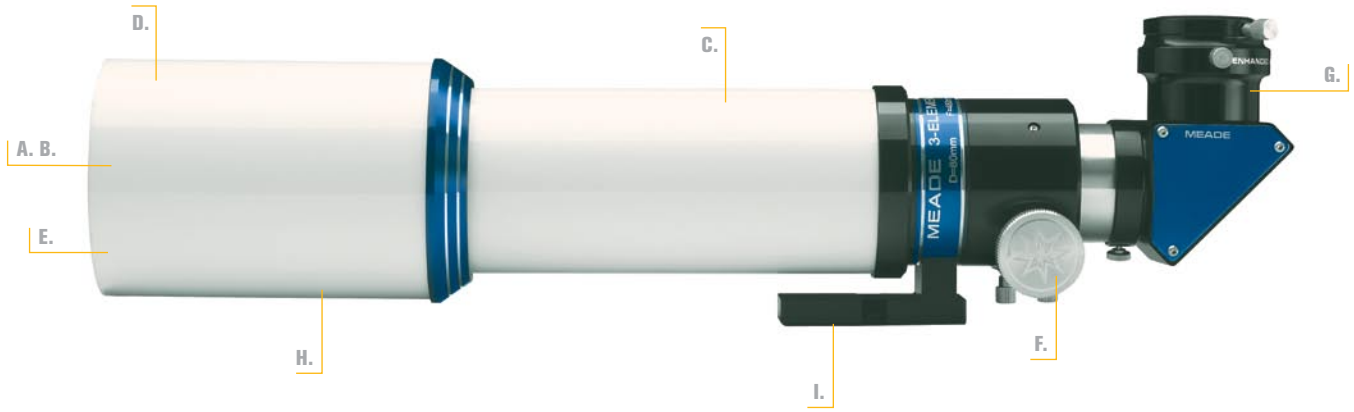
.05 MASTER

.06 GURU

.07

CONTRAST. DETAIL. CLARITY. Have it all.

SERIES 5000™ ED APO



"The color correction of the new Meade ED APO stands up to refractors that cost thousands of dollars more. Dollar for dollar, these are amazing scopes."

— Jack Newton, world-renowned Astrophotographer

STANDARD

80MM #1306-00-01

- 80mm (3.1") aperture
- 3-Element Apochromatic Refractor
- f/6 focal ratio (480mm)
- EMC super-multi coatings
- 6.2 lbs total net weight
- 15" x 4.9" x 4.9"

DELUXE

80MM #1306-00-02

- 80mm (3.1") aperture
- 3-Element Apochromatic Refractor
- f/6 focal ratio (480mm)
- Series 5000™ Enhanced 2" Diagonal
- EMC super-multi coatings
- 7.2 lbs total net weight
- 15" x 4.9" x 4.9"

For crisp wide-field observing and imaging, few optical designs match the performance of a true triple-element apochromatic refractor. This is especially true in astrophotography. Thanks to a two-year design process and a triple objective lens made from the highest quality ED (extra-low dispersion) glass, Meade Series 5000™ ED APO Triplets compete head-to-head with the world's premium APOs at a fraction of the cost.

Expert observers will be delighted by the virtual absence of color fringing around objects and the scope's textbook-perfect pinpoint star images. Even beginners will notice the extra high contrast and breathtaking resolution of a Series 5000 ED APO. Each scope is available as a stand-alone OTA in two models: Standard or deluxe. The deluxe model includes our new Series 5000 2" enhanced diagonal with a 99% reflectivity mirror and an aluminium hard carrying case.

A Series 5000 ED APO is the ideal companion for your larger Schmidt-Cassegrain, Ritchey-Chrétien, or Newtonian scope. When piggybacked, a Series 5000 ED APO is the perfect guide scope that doubles as an ideal wide-field photography scope when guided by the primary instrument. It also makes an ideal lightweight and portable scope for flawless field observing.

We anticipate that over the next several years these scopes will produce some the world's best wide-field astrophotographs.

Premium ED Glass. For unsurpassed color correction, brightness, clarity. Expensive FCD1 ED Glass. This Extra-low Dispersion (ED) glass causes all three primary spectral colors to meet at the same focal point for textbook-perfect views. Virtually eliminates chromatic aberration. **A.**

True ED Apochromatic Triplet. A true triplet optical design guarantees the textbook color correction you should expect from a premium APO. **B.**

Fast focal Ratio. At f/6 (80mm) and f7.5 (127mm), the focal ratio of these scopes is tailor-made for wide-field astrophotography. **C.**

Air-Spaced Objective Lens. The precision air-spaced triple element ED objective lens focuses red, green, and blue wave lengths to the same exact focal point. **D.**

Fully-Multicoated Lenses. Meade broadband multicoated lenses ensure maximum light transmission. **E.**

Machined Aluminum Crayford Focuser. Superior focuser means smooth and repeatable focusing with no image shift. **F.**

Adjustable Lens Cell. Allows collimation of lenses if necessary. **G.**

Fully-Extendable Dew Shield/Sun Shade. An essential accessory included for your convenience. **H.**

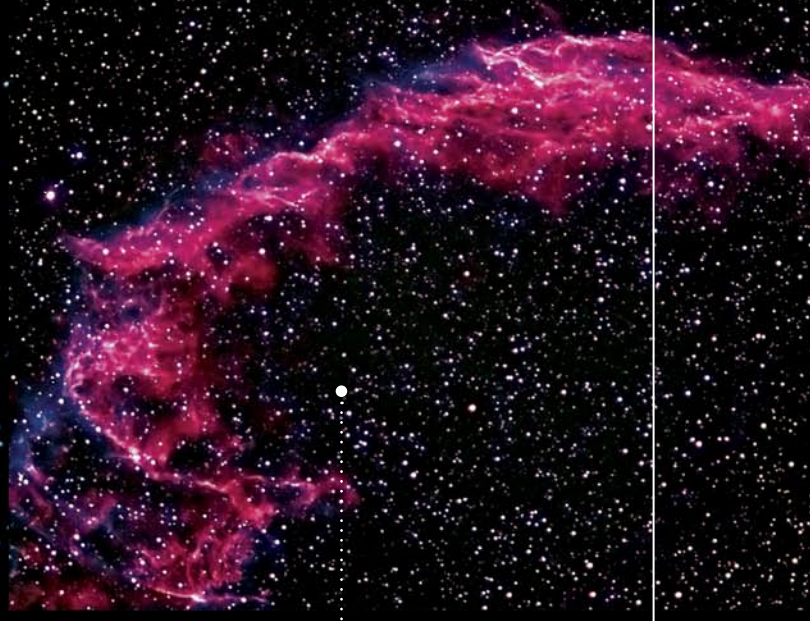
Mounting Bracket. Allows nearly universal mounting on all Meade and non-Meade German equatorial Mounts. **I.**

Need a mount? See LXD75 German Equatorial Mount, pg. 32-35.

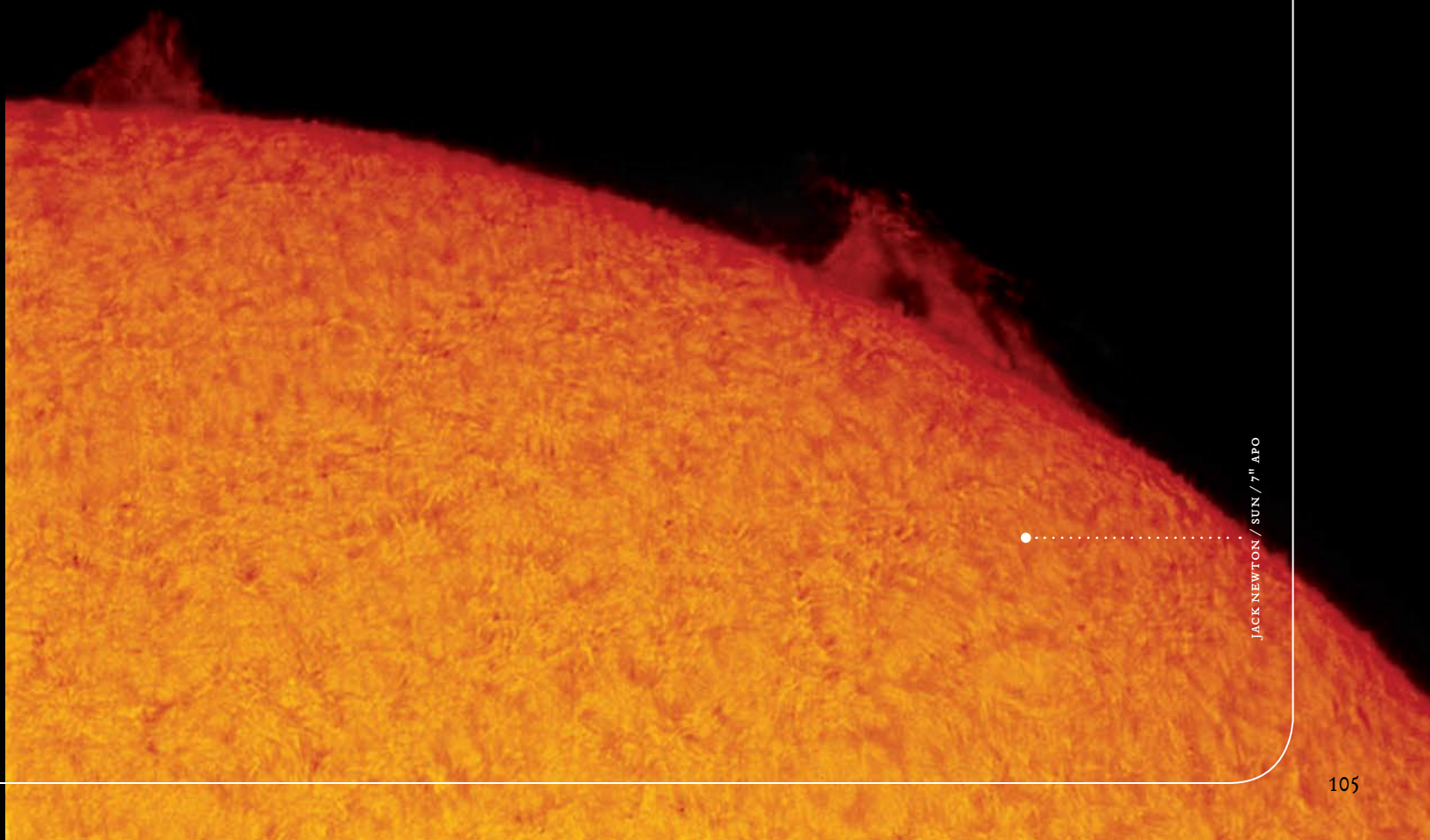
"Over the years I have done quite a bit of astrophotography of all types and consider the new Series 5000 APO Refractor one of the finest instruments of its type for imaging. The focus is sharp as one would expect from a high-quality triplet and the image color is excellent. If you're looking for a world-class APO you can afford, you won't be sorry."

—MIKE REYNOLDS / THIRD CONTACT / SERIES 5000 80MM ED APO

MARK SIBOLE / M100 / MEADE 80MM ED APO



MARK SIBOLE / NGC 6960 / MEADE 80MM ED APO



JACK NEWTON / SUN / 7" APO

"The people of Montserrat had already seen hurricanes, earthquakes and volcanic eruptions. SO I SHOWED THEM JUPITER."

—Tippy D'Auria

In 1997, one of seven active volcanoes on the 7x12-mile island of Montserrat suffered a catastrophic eruption. Two thirds of the island's 20,000 inhabitants fled. The capital city of Plymouth was abandoned. You could walk out of a second story window onto volcanic ash. As a volcanologist and amateur astronomer, I went with some friends to Montserrat in the spring of 2001 to study the impact of the full moon on volcanic activity. Knowing we were headed to a place where there had never been a telescope before, I took one along just for fun. At first, it was a mistake. The telescope got me held up in customs because the agent was afraid I would try to sell it. I got through by giving the agent all of my food money as collateral. I could no longer eat. But I could stargaze. Such were the humble beginnings of the first star party in Montserrat history. The island's only radio station (to which everyone listens for volcanic activity reports) ran announcements that some Americans were up on Jack Boy Hill with a telescope. Half the island turned out. Literally. Boy Scouts. Brownies. Moms and Dads. Maybe it was the pull of the cosmos. Maybe there was just nowhere else to go. But there was a line in front of that little Meade ETX telescope for five nights straight. Nearly 2500 men, women, and mostly children, waited over an hour to look at planets they had read about in books but had yet to experience. Of all the sights in astronomy, none is grander than the look on a child's face when they first see the rings of Saturn. And here's a little trick of the trade: Never tell a child you're going to show them Saturn. Instead, let them look in the telescope and say, "what do you see?" You can thank me later. Since my first look at Saturn's rings, I have recorded video of mysterious flashes on Mars, photographed dozens of comets and meteor showers, and had an asteroid named in my honor (11378 D'Auria). But the real joy of astronomy is still sharing the wonder with others. While the effect is somewhat less dramatic at home than it was on Jack Boy Hill, my telescope never fails to draw a crowd.

MONTSERRAT
Little Bay
Marguerita Bay
St. John's
St. Peter's
Woodlandz Bay
Harris
Farm Bay
Cork Hill
Caribbean Sea
Sugar Bay
Morris
German's Bay
Landing Bay

.08
ECONOMIST
A and DS™-2000
SERIES

Most avid astronomers trace their passion to a first look at Saturn through a small refractor.

Terry Fuller: *mother of three, piano teacher, DS-2114 owner.*

Level: *Absolute beginner.*

Mindset:
I don't have a lot of money, but I still want to see the rings of Saturn, explore the lunar surface, stars and clusters, and discover what stargazing is all about.

Mantra:
Curiosity makes the world go round.

Priorities:
Price. A positive stargazing experience. A sturdy mount. Quality optics.

Goals:
Stay on budget.
Find a quality telescope I can learn and grow with.

Also used by: Recruit, Enthusiast

Performance:

Amazingly crisp views of moon, planets, bright clusters and nebulas.

Design:

Refractor, Reflector.

Strength:

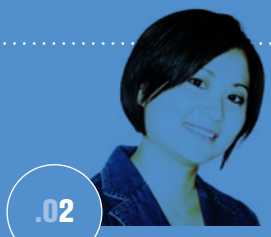
Mount and optics designed with passion by Meade engineers in Irvine, CA. Many features from higher priced Meade scopes find their way into the A and DS-2000 series.

Buzz:

A handful of dedicated amateurs use Meade's DS-2000 series scopes with our Lunar Planetary and Deep Sky imagers to do astrophotography with impressive results.

.01

RECRUIT



.02

ENTHUSIAST

A-SERIES:
MANUAL

Meade 70AZ-AR #04043

70mm (2.8") aperture
Achromatic Refractor
Altazimuth mount
f/10 focal ratio (700mm)

Meade 114EQ-ASTR #04066

114mm (4.5") aperture
Newtonian Reflector
Equatorial mount
f/8.8 focal ratio (1000mm)

DS-2000 SERIES:
COMPUTER GUIDED

Deluxe AutoStar #494
1,400 object database

Meade DS-2080AT-LNT #20085

80mm (3.1") aperture
Achromatic Refractor
Altazimuth mount
f/10 focal ratio (800mm)

Meade DS-2114ATS-LNT #20123

114mm (4.5") aperture
Newtonian Reflector
Altazimuth mount
f/8.8 focal ratio (1000mm)

Meade DS-2130ATS-LNT #20133

130mm (5.1") aperture
Newtonian Reflector
Altazimuth mount
f/7.7 focal ratio (1000mm)

For a full list of specifications go to www.meade.com

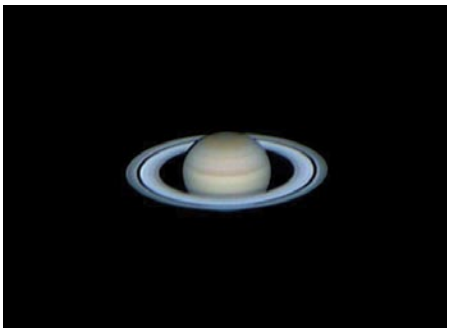
The universe belongs to everyone.

Should a person have $1000 to spend before they can see the rings of Saturn? No. For more than 30 years, Meade has made telescopes of all levels in order to share our passion with as many people as possible. Our A and DS-2000 series scopes may compete in the $79-plus range, but they are Meade-engineered through and through. They are great for families, kids and gifts. At this price, the market is filled with sub-standard telescopes. Choose Meade, and the quality, customer service, and reputation of the world's number one telescope manufacturer will be there to turn your curiosity into a lifelong passion.

What can you see? Most astronomers trace their love of the night sky to a first look at Saturn through a telescope just like the ones in this section. Any entry-level scope will let you see craters on the Moon, the rings of Saturn, the cloud belts of Jupiter and its moons, plus countless star clusters, double stars, nebulas and more. Remember, low power is best, and the larger the aperture (scope diameter), the brighter those deep sky treasures will appear. The astrophotographs in this catalog do not represent actual views through a telescope. For an explanation, see pg. 57

Choosing your scope. For further information on selecting your scope, see the following sections: Optical Systems, pgs. 45-49; AutoStar®, pg. 13; AutoAlign™ with SmartFinder™, pg. 15, and Aperture, pg. 57.

EDWARD ROACH / SATURN / LX90



MARK SIBOLE / MOON / ETX-90

CHUCK REESE / MARS / LX200

MANUAL TELESCOPES. Basic can be beautiful.

A-series scopes are our most basic. These manual scopes let you learn the night sky from star charts and the included DVD software. Many old-school hobbyists still feel this method of "star-hopping" is the best way to learn astronomy.

Meade 70AZ-AR Altazimuth Refractor.

Economical and perfect for viewing daytime or nighttime objects, this telescope will surprise you with crisp views of the rings of Saturn and much more.

- **70mm (2.75") Aperture:** Plenty of brightness to reveal planets, clusters, nebulas and more.
- **Sturdy Altazimuth Mount:** Lightweight and solid aluminum mount and tripod for stable views.
- **Two Premium 1.25" Plössl Eyepieces:** (25mm and 9mm) Enjoy low and high power viewing with crisp, wide fields of view.
- **Red Dot Viewfinder:** Makes stars and other objects easier to find.
- **AutoStar Suite™ DVD:** Amazing planetarium software and instructional video will help you learn about the night sky and how to use your telescope. Print out star charts. Plan observing sessions. Displays over 10,000 astronomy targets. Operates on any Windows®-based PC.

Meade 114EQ-ASTR Equatorial Reflector

Reflectors always provide the most aperture for your dollar. With its full 4.5" of aperture, this affordable telescope will show you deep sky objects in amazing detail. Not for land viewing.

- **114mm (4.5") Aperture:** Amazing aperture offers brighter views of planets, clusters, nebulas and galaxies.
- **Sturdy Equatorial Mount:** Lightweight and solid aluminum mount for a stable view. An Equatorial Mount, when properly polar aligned, makes tracking of astronomical objects easy.
- **2 Premium 1.25" Plössl Eyepieces:** (25mm and 9mm) Enjoy low and high power viewing with crisp, wide fields of view.
- **Red Dot Viewfinder:** Makes stars and other objects easy to find.
- **AutoStar Suite™ DVD:** Amazing planetarium software and instructional video will help you learn the night sky and how to use your telescope. Print out star charts. Plan observing sessions. Displays over 10,000 night sky objects. Operates on any Windows®-based PC.

ASTROPHOTOGRAPHY: JASON WARE / M16-EAGLE NEBULA / LX400

DS-2000 SERIES TELESCOPES. GoTo capabilities take you there.

DS-2000 series scopes are fully computer-guided GoTo scopes. They include our AutoStar® controller (#494) with its database of over 1400 objects. If you want an affordable telescope that will give you a guided tour of the night sky, the DS-2000 series is a great place to start.

DS-2080AT-LNT 80mm Refractor

The DS-2080 knows the night sky out of the box. Turn it on, and after a brief alignment procedure, your telescope will take you on a guided tour of more than 1400 treasures of the universe. See more objects in one night than Galileo saw in a lifetime. Perfect for land or sky viewing.

Deluxe AutoStar #494
1,400 object database

- **80mm (3.1") Aperture:** Plenty of brightness to reveal planets, clusters, nebulas and more.
- **Sturdy Fork Mount:** Lightweight and solid aluminum mount and tripod for stable views.
- **#494 AutoStar® Controller:** Automatically locates more than 1400 objects and points the telescope toward them for you at the push of a button.
- **Series 4000 Super Plössl 1.25" Eyepieces:** (26mm and 9.7mm) Enjoy low and high power viewing with crisp, wide fields of view.
- **Altazimuth Set-up:** Easy-to-use mount moves up/down, left/right.
- **SmartFinder™/Red Dot Viewfinder™:** Makes stars and other objects easy to find. Electronic level sensor, north sensor, and precision internal clock help get your scope aligned with the heavens quickly.
- **AutoStar Suite™ DVD:** Amazing planetarium software and instructional video will help you learn about the night sky and how to use your telescope. Print out star charts. Plan observing sessions. Displays over 10,000 night sky objects. Operates on any Windows®-based PC.

DS-2114ATS-LNT 114mm Reflector

Like the DS-2080, the DS-2114 knows the night sky out of the box. It can take you on a guided tour of the universe at the push of a button. But with a full 4.5" of aperture, you'll see more surface detail on planets, more cloud structure in nebulas, more stars in clusters, and more brightness everywhere you look. Not for land viewing.

Deluxe AutoStar #494
1,400 object database

- **114mm (4.5") Aperture:** Amazing aperture offers brighter views of planets, clusters, nebulas and galaxies.
- **Sturdy Fork Mount:** Lightweight, solid aluminum mount for a stable view.
- **#494 AutoStar® Controller:** Automatically locates over 1400 objects and points the telescope toward them for you at the push of a button.
- **Series 4000™ Super Plössl 1.25" Eyepieces:** (25mm and 9mm) Enjoy low and high power viewing with crisp, wide fields of view.
- **Altazimuth Set-up:** Easy-to-use mount moves up/down, left/right.
- **SmartFinder™/Red Dot Viewfinder™:** Makes stars and other objects easy to find. Electronic level sensor, north sensor, and precision internal clock help get your scope aligned with the heavens quickly.
- **AutoStar Suite™ DVD:** Amazing planetarium software and instructional video will help you learn about the night sky and how to use your telescope. Print out star charts. Plan observing sessions. Displays over 10,000 night sky objects. Operates on any Windows®-based PC.

114mm
DS-2114
Reflector

130mm
DS-2130
Reflector

DS-2130ATS-LNT 130mm Reflector

With a large 5" of aperture, the DS-2130 has the most light-gathering capability of any scope in this section. It can point to over 1400 objects at the push of a button. And with 5" of aperture, you enter the true realm of the galaxies. See even more surface detail in planets and detect more cloud structure in nebulas. It's an amazing amount of telescope for the money. Not for land viewing.

- **130mm (5.1") Aperture:** Largest aperture in its family offers brighter views of planets, clusters, nebulas, galaxies and more.
- **Other specs same as above.**

ASTROPHOTOGRAPHY: JACK NEWTON / M81 - BODES GLAXY & M82 - CIGAR GALAXY / LX400

Deep-Sky Imaging for everyone is here. Dive in.

The camera sees what the eye cannot.

If you've been around telescopes for more than ten minutes, you understand the limitations of the human eye to detect color and detail in very faint objects. The key to unlocking the visual wonders of the universe in all their grandeur is astrophotography. Until recently, photographing the night sky was reserved for professionals and a few patient (and often well-to-do) amateurs. But no more. User-friendly and affordable Meade imagers have brought the joys of astrophotography to all.

Astrophotography made easy.™

Considering astrophotography has a reputation for difficulty somewhere between rocket science and brain surgery, "easy" may be a relative term. But when Sky & Telescope magazine says, "...I could get very encouraging results just by using the camera's default settings and following Meade's simple tutorial for basic deep-sky imaging," you know it's a great time to be alive. Technology has flattened another learning curve.

Making the impossible, possible.

The astrophotographs on the following pages were taken by backyard astronomers just like you. Yes, some of them have been practicing with their equipment for a while. In that sense it's just like learning to use any other new tech device. Or playing a musical instrument. But most of those astrophotographers, spent hundreds, not thousands on their cameras. And all of them are having a wonderful time. Buy your LPI, DSI or DSI II, and start imaging tonight.

WWW.MEADE.COM | 949.451.1450

KEN GAMBLE / SATURN / LPI

Meade LPI™ Imager
VGA resolution CMOS color chip
640x4800 (307, 200 pixels)
AutoStar Suite software
USB compatible

LPI MINIMUM SYSTEM REQUIREMENTS:
Windows 98SE with 64 MB and 100 MB free disk space.

JOHN PAUL LONGCHAMP
NGC 1977 – RUNNING MAN / DSI PRO

DSI
Sony® Super HAD™ Color CCD
510x492 (250,920) pixels
16-bit A/D conversion
1/10,000 sec. to 1-hour exposures
USB 2.0 (cable included)

DSI II
High Sensitivity Sony® EXview HAD™ CCD color sensor
752x582 (437,664) pixels
16-bit A/D conversion
1/10,000 sec. to 1-hour exposures
USB 2.0 (cable included)

MARK SIBOLE / NGC 2264
– CONE NEBULA / DSI II

DSI II Pro (Monochrome)
Same as above except with High Sensitivity Sony® EXview HAD™ CCD monochrome sensor (also available with CCD color filter set)

DSI & DSI II MINIMUM SYSTEM REQUIREMENTS:
Pentium-II 400MHz computer (Pentium-4 2GHz recommended) 98 MB RAM (512 MB recommended), 200 MB available hard-drive space (1GB recommended), CD-ROM drive, Windows 98SE/ME/2000/XP (XP recommended) USB 1.1 (2.0 recommended) full power port.

MATT TAYLOR / NGC 2237 - ROSETTE / DSI PRO II

"The DSI system is a low-cost,
rewarding gateway to deep-sky astrophotography."

—SKY & TELESCOPE MAGAZINE

IMAGERS

AUTOSTAR SUITE.™
The brains behind user-friendly astrophotography.

a. Point-and-shoot. If you've tried astrophotography before, you'll appreciate how easy Meade imagers really are. Images appear on your computer screen in real time. To shoot, you simply focus, draw a box around the subject on your computer screen, and click start. It's that easy. Of course, all automatic functions may also be done manually, allowing you to learn and grow as an astrophotographer.

CHUCK REESE / M109 – SPIRAL GALAXY / DSI / LX200

b. Automatic stacking makes imaging a joy. One of the most amazing aspects of AutoStar Suite is the ability to automatically stack multiple good images and throw out bad ones. This process has long been used to overcome atmospheric turbulence, gusts of wind, poor alignment and other issues that affect image clarity. But it has never been this automated. Or this easy.

NEIL FLEMING / M101 – PINWHEEL GALAXY / DSI PRO

c. Create large-pixel masterpieces with NASA's Drizzle Technology.™ Meade's patent-pending Drizzle Technology (pioneered at NASA for the Hubble Space Telescope) allows you to take stunning large-format astrophotographs with a smaller chip. Meade imagers can take multiple uncompressed long-exposure images, then automatically edit, center, de-rotate, stack, sharpen, and Drizzle-process them into a single dramatic astrophotograph. Drizzle (which only works with Meade telescopes) effectively increases the resolution and field of view of every Meade imager.

MATT TAYLOR / M1 – CRAB NEBULA / DSI PRO II

d. AutoStar Suite Imaging Features:

- *Multiple camera control: Supports multiple Deep Sky Imagers and one LPI.*
- *Automatic and manual exposure settings.*
- *Color saturation and balance: eliminates the need for expensive aftermarket tools.*
- *Automatic align and stack*
- *Automatic dark subtraction: Dark frames are automatically stacked, averaged, then subtracted, giving you a clean final image.*
- *Magic Eye focus: Built-in focusing program for super fast, no-hassle focusing.*

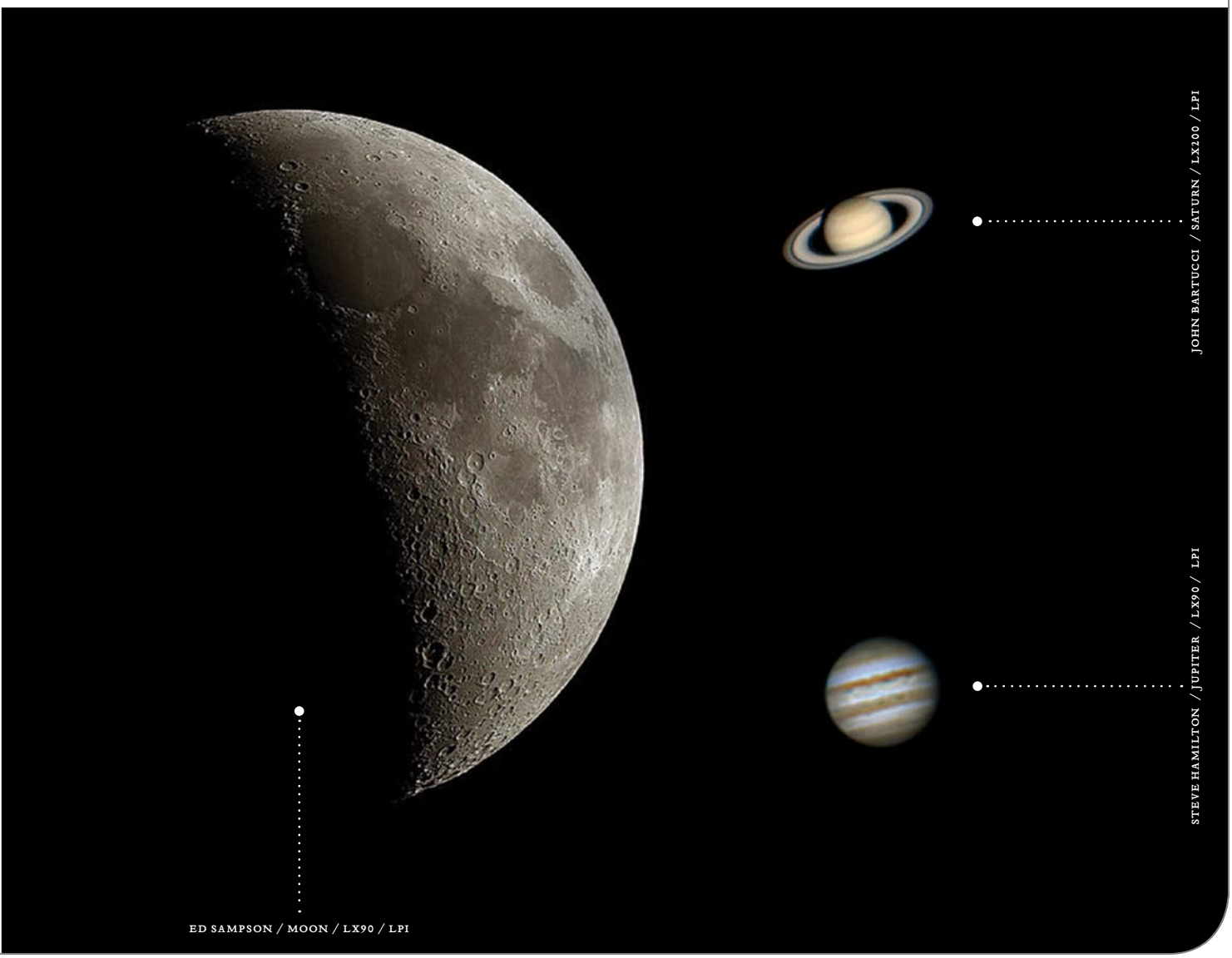
STEVE HAMILTON / NGC 7293 – HELIX NEBULA / DSI PRO II / LX90

THE LUNAR PLANETARY IMAGER (LPI).
Works miracles on the moon, planets and even the Sun.

"If I hadn't made the images myself, I wouldn't have believed it. For the beginner (or returning astrophotographer like me), the LPI is a great way to get started." — John Bartucci

Imagine watching Saturn, Mars, Jupiter or the moon download onto your computer screen in incredible detail. That's the experience thousands of amateurs have enjoyed, thanks to the LPI, Meade's sophisticated take on the web cam. More than one user commented, "It was worth the price of the camera just to get the power of the software alone."

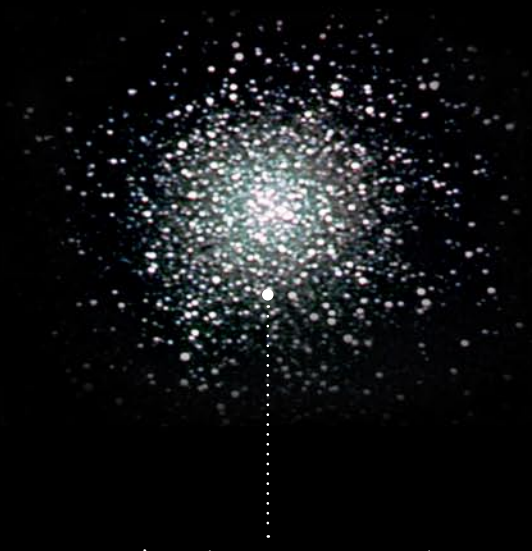
Installing the LPI is as easy as installing an eyepiece. With similar magnification to a 6mm eyepiece, the LPI lets you capture high magnification images of the moon, planets, and brighter deep sky objects in breathtaking detail. Or you can photograph the sun (with proper filters). It also works well with a Barlow lens for even closer views. It's a fun and exciting introduction to astrophotography that will keep you busy for years.



LPI™

MARK SIBOLE / M16 – EAGLE NEBULA / DSI PRO

PETER O'BRIEN / M42 – GREAT ORION NEBULA / DSI PRO



PETER O'BRIEN / M13 – HERCULES CLUSTER / DSI

Deep Sky Imager (DSI). Capture the universe in stunning detail.

"I'm sold! I was able to capture incredible images my first night out. The DSI has reignited my passion for astronomy." — Peter O'Brien

Sky and Telescope says, "I came away from my DSI experience wondering why anyone with a telescope and a computer wouldn't want to own one of these cameras. [They are] one of the best values in astronomical imaging available today." If you've always wanted to take detailed color photos of faint nebulas, galaxies, and star clusters but found the astrophotography learning curve a little too steep, Meade's DSI is for you.

Consider the story (now legendary in Meade circles) of Matt Taylor, who decided to try out his DSI on M51, set the exposure time to 30 seconds, fell asleep, and woke up an hour later to find a beautiful image of the Whirlpool Galaxy on his computer screen. While Matt's "snooze" approach is not recommended, many amateurs echo the sentiments of Hilary Jones who says, "on my first night out, I found I could photograph several deep sky targets with very little effort."

If you're comparing the DSI to Johnny-come-lately knock-offs, consider it's unique design advantages. These include convection cooling and other proprietary noise reduction techniques (which combine to allow longer exposures with less noise and more data). Meade AutoStar Suite is also the easiest and most intuitive imaging software on the market. Finally, zero compression means no loss of information in your raw images.

Here are just a few of DSI's amazing features:

+ One pass color imaging. No filters required.
+ CCD sensitivity comparable to imagers in the $1000+ range.
+ Doubles as a sensitive, user-friendly auto-guider.
+ Fast transfer speed lets you see images in almost real time.
+ Software includes image processing. You won't need other programs to adjust color saturation or balance.

First time user, George Lilley says, I'll never forget watching the Ring Nebula (M57) appear on my screen. The DSI helps first-timers like me take images that show detail no eyepiece could ever deliver. Chuck Reese adds, "After a few weeks with the DSI, I know two things: I love CCD astrophotography, and it will be years before the DSI becomes the limiting factor in my ability to create the caliber of images I want."

MARK SIBOLE / NGC 2024 – FLAME / DSI PRO II

MARK SIBOLE / NGC 1333 – HORSEHEAD NEBULA / DSI PRO II

MARK SIBOLE / NGC1779 – RUNNING MAN NEBULA / DSI II

DSI II and DSI Pro II. Giving high cost imagers a run for their money.

"The larger chip, greater sensitivity, and lower noise make the DSI Pro II a definite contender with "The Big Boys." — Steve Hamilton

The user-friendly astrophotography revolution continues with the larger, more sensitive, higher resolution DSI II and DSI Pro II. A number of astrophotographers have written to tell us that the DSI II (or DSI Pro II) has turned their expensive cooled camera into a primary auto-guider. Mark Sibole of Fife Lake, MI, says, "I owned a more expensive cooled imager in the past and didn't get images like I get with the DSI II. I've since sold that expensive camera because I wasn't using it any more."

The DSI II (color) and DSI Pro II (monochrome/color filter) cameras combine ease-of-use with a larger chip, greater sensitivity, higher resolution and dramatically lower thermal noise. Meade engineers invented a remarkable new way to reduce noise without a cooler. This means you can take exposures for hours at a time. And new thermal monitoring sensors match dark frames to ambient temperatures so it's nearly impossible to take an uncalibrated picture.

The camera has a new zoom feature for easier focusing and the squared pixels of the new larger chip make processing simpler and images more beautiful than ever. The DSI II is the world's first un-cooled camera with low thermal noise. And that's as cool as it gets.

Compared with the standard DSI, the DSI II gives you:

+ Dramatically lower noise.
+ Larger 8mm diagonal (type ½) chip.
+ 74% higher resolution.
+ Greater sensitivity.
+ Temperature sensor.

DSI II user Chuck Reese says, "I did not have to take dark frames because the software can match the operating temperature of the chip to the perfect dark frames taken from previous sessions. My hat is off to Meade. I was expecting an incremental step forward but the DSI II is more like a quantum leap!" Steve Hamilton agrees, "The DSI-Pro II shows Meade's dedication to providing beginner, intermediate, and even advanced astrophotographers with constantly improving platforms and processes—along with a professional level of quality unheard of at this price."

The pictures and testimonials speak for themselves. If you want to own the absolute best of the user-friendly Meade imager family, get a DSI II or DSI Pro II.

For a detailed DSI II Q&A, visit meade.com.

THE MEADE 4M COMMUNITY. Explore. Discover. Learn. Share.

Astronomy is among the world's greatest pastimes. Of course, it comes with one of the world's greatest learning curves to match. That's why Meade created the 4M Community; an outreach organization solely committed to the worldwide growth of astronomy.

This is not new to Meade. Since the company started some 30 years ago, its driving purpose has been to grow the hobby. Our founder, John C. Diebel, even won the prestigious Bower award from the Franklin Institute in 1998 for "helping ordinary people experience the discipline, wonder and excitement of scientific inquiry." Past Franklin Institute Award recipients include Alexander Graham Bell, Thomas Edison, Albert Einstein and Stephen Hawking.

20,000 members and growing, the Meade 4M Community took off like the Big Bang in 2005 and is already beginning to fulfill its mission by supporting, encouraging, and strengthening the astronomical community like never before.

The 4M Community board of advisors includes some of the most important names in astronomy including all-stars like David Levy, Jack Newton, Tippy D'Auria, Andre Bormanis, and Terry Mann, among others. These luminaries provide astronomy tips, give lectures, advise the community, and participate in the 4M online radio program, Meade Radio. 4M Community members get to access our online radio programs, shop the online 4M store with select discounts, participate in raffles for stargazing equipment (*USA only*), and much more. Astrophotography contests, star parties, community events, and the 4M Community website help members achieve the four pillars of 4M—to explore, discover, learn and share the astronomy experience with others.

The 4M Community is inclusive, not exclusive. Our members can own any brand of telescope or no telescope at all. Our partner organizations include the Astronomical League, Popular Science, StarDate, the International Dark Sky Association, Sky & Telescope, Astronomy, and more. If there is a group of people anywhere on the planet that encourages others to discover the wonders of the universe, the 4M Community supports it wholeheartedly.

If you are a seasoned astronomer, the 4M Community is your home base for keeping in touch with friends, sharing new discoveries, and mentoring others. If you are new to the hobby, the fastest way to dive into astronomy with both feet is to join both your local astronomy club and the 4M Community.

TO LEARN MORE ABOUT THE 4M COMMUNITY OR SIGN UP TO BECOME A MEMBER, VISIT WWW.MEADE4M.COM.

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DAVID & WENDEE LEVY are hosts of the Meade Radio program, "Ask David." Topics have included "How To Search For Comets." Considering David's 21 comet discoveries, it's worth a listen. Meade Radio programs have also featured "Astrophotography Tips" with astrophotography guru Jack Newton, and a captivating interview with UNESCO's Space Education Program Coordinator, Yolanda Berenguer.

MEADE 4M COMMUNITY

MEADE OPTICS. The quest for a perfect view.

A perfect view of the heavens will always be affected by things beyond our control: Atmospheric turbulence. Light pollution. Clouds. But for over 30 years, it's been our passion to control every aspect of the astronomy experience that science, research, and precise optical manufacturing methods allow. Because the exploration we love to do at night is made possible by the job we love to do each day.

Precision diamond milling. Electronic-beam vacuum coating. Interferometers. Foucault and Ronchi tests. Complex optical coating formulas. These represent just a small part of the pains we go through each day to make sure that when you reach the unreachable star, it will be a perfect pinpoint of light. There is not a commercial telescope company on earth who has invested more money in equipment, brainpower, and optical innovation than Meade. Comet discoverer David Levy puts it this way, "Meade has a generation of experience making optics for telescopes and they've really got it right. Optically, even the smallest ETX is well worth double its price."

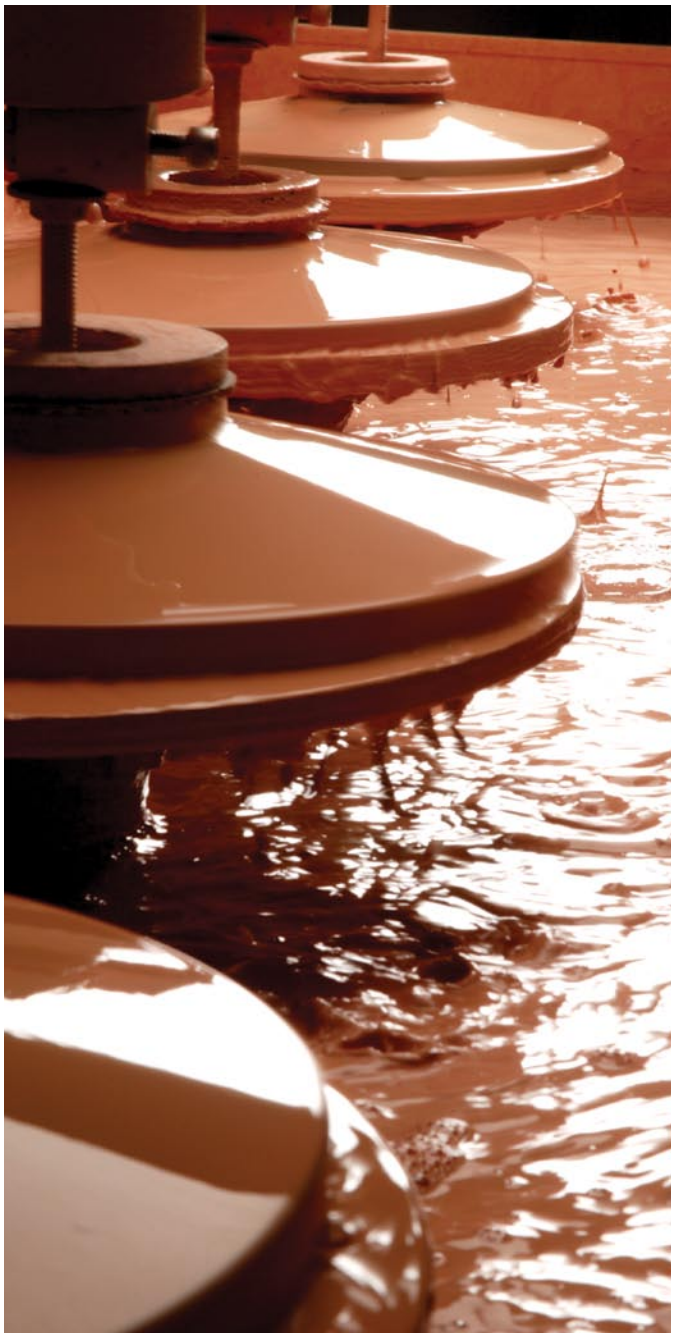
This is our mission. To discover new ways to design and manufacture serious telescopes in high enough volume to allow everyone an observatory-quality experience from their own backyard. It's a dream that's coming true.

After decades of industry-leading innovations, the Advanced Coma-Free design is our grandest achievement yet. Astrophotographer Jack Newton says, "The genius of Meade's engineering team is reflected in the new Advanced Coma-Free design. It is just dramatically better than any Schmidt-Cassegrain you can buy. Meade has raised the bar on the whole optics question. Everybody else will be scrambling to catch up."

Dr. P. Clay Sherrod of the Arkansas Sky Observatories puts it this way, "Meade Schmidt-Cassegrain optics were the best consumer optics made with that design. But the Advanced Coma-Free series are a real step up. The optics on my 16" are absolutely the best I have ever tested in a production telescope... Bar none."

Add to these optical triumphs our recent innovations in CCD imaging (our user-friendly family of DSI imagers has created an astrophotography revolution) and it's easy to see why the growth of Meade and the growth of amateur astronomy go hand-in-hand.

It wouldn't be wise for us to give away all of our research and manufacturing secrets (only six employees are authorized to enter our Advanced Coma-Free lab). But we can tell you that while other manufacturers are doing less and less to move astronomy forward, we will continue to do more and more. After all, astronomy is our passion.



SERIES 5000™ EYEPIECES. The best view of the heavens on earth.

The right eyepiece can make or break any telescope. After all, why squint through a tiny pinhole when you can linger at a dramatic window on the universe and examine every detail? Meade series 5000 eyepieces offer revolutionary new advances in resolution, image correction and eye relief at irresistible prices. You simply won't believe how a premium eyepiece improves your view, no matter what scope you own. See pinpoint resolution edge-to-edge with luxuriously long eye relief. If you think our series 5000 eyepieces look good on the outside, wait until you see the heavens through one.

Series 5000 5-Element Plössls have the widest apparent field of view (60°) of any Plössl on the market. The Super Wide Angle series ups the ante with an amazing-for-the-money 68° apparent field of view. Finally, our top-of-the-line Ultra Wide Angle eyepieces deliver an astounding 82° apparent field of view. For uncompromising views that make any telescope better, order a set today. You have to see the universe through one to believe it.

Compare Series 5000 features to any eyepiece on the planet:

+ Several types of exotic premium grade optical glass
+ Individually tuned, multi-layered coatings for maximum light transmission
+ Blackened lens edges and internal surfaces maximize contrast
+ Parfocal - little or no focusing necessary when switching eyepieces
+ Extra long eye relief
+ Adjustable twist-up rubber eyeguards

Eyepieces may be purchased separately or in sets. Photo shows entire Ultra Wide Angle family (purchased separately) in aluminum carry case.

Complete Kits with aluminum case

Series 5000 5-Element Plössl

INCLUDES: 5.5 14 20 32 AND ALUMINUM CARRY CASE

Series 5000 Super Wide Angle

INCLUDES: 16 24 34 AND ALUMINUM CARRY CASE

Series 5000 Ultra Wide Angle

INCLUDES: 6.7 14 30 AND ALUMINUM CARRY CASE

"The Ultra Wide Angle Series 5000 is the most incredible eyepiece I've ever tested. Perfectly flat to the edges. Outstanding light transmission. Absolutely breathtaking."

— Dr. P. Clay Sherrod, Arkansas Sky Observatory

Meade Series 5000™ eyepieces.

Ultra Wide Angle

[82°]
field of view

Focal Length	Barrel Size	# of Elements
4.7	1.25"	7
6.7	1.25"	7
8.8	1.25"	7
14	1.25"	7
18	1.25"	6
24	2"	6
30	2"	6

Super Wide Angle

[68°]
field of view

Focal Length	Barrel Size	# of Elements
16	1.25"	6
20	1.25"	6
24	1.25"	6
28	2"	6
34	2"	6
40	2"	6

Plössl

[60°]
field of view

Focal Length	Barrel Size	# of Elements
5.5	1.25"	6
9	1.25"	5
14	1.25"	5
20	1.25"	5
26	1.25"	5
32	2"	5
40	2"	5

TeleXtenders

[2x–5x]
magnification

Magnification	Barrel Size	# of Elements
2x	1.25"	4
3x	1.25"	4
5x	1.25"	4
2x	2.0"	4

2" Enhanced Diagonal

[99%]
reflectivity

Boost eyepiece performance with the new 2" Series 5000 enhanced diagonal. This thermally stable, interferometer-tested, enhanced dielectric-coated diagonal boasts 99% reflectivity. Also includes 1.25" eyepiece adapter.

SERIES 4000™ EYEPIECES. A brilliant eyepiece. An ingenious price.

One of astronomy's most famous amateurs (who prefers to remain anonymous to keep peace with Meade's competitors) discovered seven comets with Meade eyepieces. He says, "because they offer pinpoint resolution and high contrast to the extreme field edge, I have switched nearly every eyepiece in my observing set to Series 4000s." At these prices, who can resist?

Series 4000 QX Wide Angle™ eyepieces are one of the few eyepieces sold today that offer a 70° apparent field of view combined with ultra sharp resolution and contrast. Series 4000 Super Plössls represent the best eyepiece value in the market. Period. The Series 4000 zoom lens offers a complete focal length range from 8mm to 24mm (in a single eyepiece) without sacrificing resolution compared to fixed focal length oculars.

Series 4000 highlights include: Premium grade optical glass, multi-layer coatings, blackened lens edges, parfocal (except 40mm and 56mm Super Plössls), comfortable eye relief, fold-down rubber eyeguards.

Meade Series 4000™ eyepieces.

QX Wide Angle [70°] field of view

Focal Length	Barrel Size	# of Elements
15	1.25"	5
20	1.25"	5
26	2.0"	5
30	2.0"	5
36	2.0"	5

Super Plössl [52°] field of view

Focal Length	Barrel Size	# of Elements
6.4	1.25"	4
9.7	1.25"	4
12.4	1.25"	4
15	1.25"	4
20	1.25"	4
26	1.25"	4
32	1.25"	4
40	1.25"	4
56	2.0"	4

#140 Apochromatic Barlow Lens 2x Magnification

Magnfication	Barrel Size	# of Elements
2X	1.25"	3

Zoom Eyepiece 40° field of view (50°@ 80mm/40°@ 24mm)

Focal Length	Barrel Size	# of Elements
8mm-24mm	1.25"	7

Meade Series 4000 Eyepiece and Filter Set

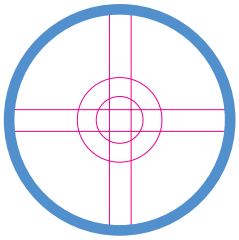
Includes: 6.4mm, 9.7mm, 12.4mm, 15mm, 32mm, 40mm Super Plössls, 2x Barlow lens, Series 4000 color filter set #1 (yellow, light red, green, blue), Series 4000 moon filter, and aluminum carrying case. See following page for more filter sets and applications.

ILLUMINATED RETICLE EYEPIECES. Get precise.

These specialty eyepieces are very useful for astrophotographers who need to lock onto guide stars and then frame objects on the CCD chip. Or for observers making astronomical measurements. Their etched reticle patterns are internally red illuminated to stand out against a dark sky.

Illuminated 9mm Series 4000 Plössl.

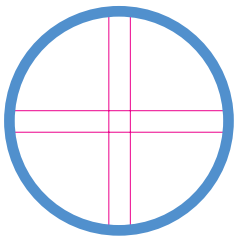
The world's finest commercially available illuminated reticle. We outfitted a quality 4-element, fully-coated Plössl with a fully illuminated double-crossline and two concentric circles plus x-y positioning controls that make locking onto a guide star noticeably easier. Variable brightness. Available w/wire or wireless.



9MM

Illuminated 12mm Modified Achromatic.

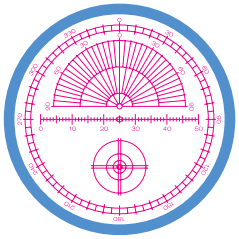
An excellent lower cost alternative to the 9mm illuminated reticle. It's a 3-element, fully-coated eyepiece with an illuminated double-crossline. Variable brightness. Available with wire or wireless.



12MM

Illuminated 12mm Astrometric Eyepiece.

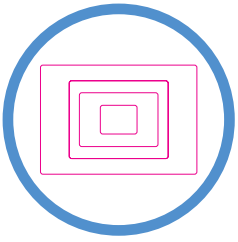
A high precision eyepiece with four different illuminated scales for making astronomical measurements. Measure double star separations and position angles, planetary diameters, lunar crater diameters, and more. Also includes a double-crossline scale for guiding during astrophotography. This one does it all. Variable brightness. Wireless only.



12MM Astrometric

Illuminated 25mm Plössl CCD Framing Ocular.

Helps you compose astronomical images to fit the dimensions of Meade's Deep Sky Imager CCD chips. Includes illuminated "frames" for DSI and DSI II CCD chip sizes. A lockable spacer allows eyepiece to be parfocal with your imager. Variable brightness. Wireless only.



25MM CCD

SERIES 4000™ EYEPIECES

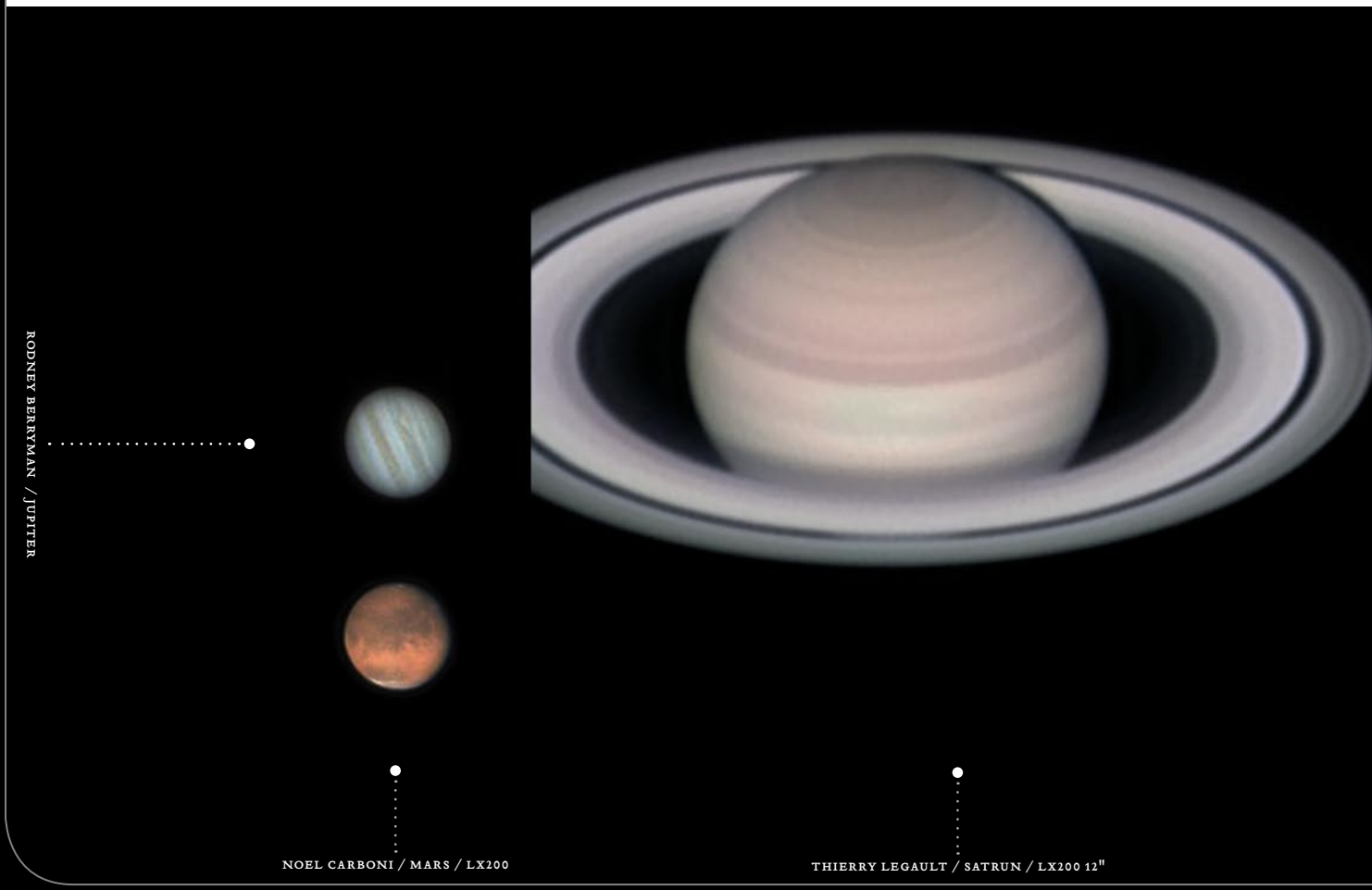
SERIES 4000™ FILTERS. Awe-inspiring contrast and detail.

Color filters are essential for observing and imaging the moon and planets in tantalizing detail. The right filter can mean quite literally the difference between seeing several small craters in the floor of Clavius on the moon or not; seeing five or six swirls in Jupiter's north equatorial belt or not; seeing the inner crêpe ring of Saturn or not.

Depending on atmospheric conditions on Earth and the planet being observed (or photographed), the advantages of color filters can be anywhere from subtle to dramatic.

Meade Series 4000 filters offer 26mm of clear aperture and are manufactured from the purest optical glass, dyed-in-the-mass (not "color coated"). There are no finer filters available for telescopic applications. They thread into the barrels of virtually any brand of 1.25" eyepiece as well as the 1.25" Meade Basic Camera adapter. They may also be stacked to achieve selective filtration of the visual color spectrum.

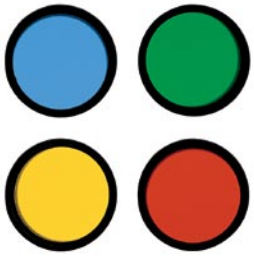
Each Series 4000 filter is packed in a foam-fitted plastic case for safe long-term storage. The color filters come in four economically priced sets.



RODNEY BERRYMAN / JUPITER

NOEL CARBONI / MARS / LX200

THIERRY LEGAULT / SATRUN / LX200 12"



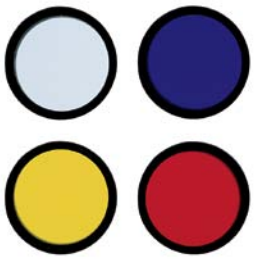
Series 4000™ Color Filter Set Number One:

#12 Yellow (74% transmission): Adds contrast to blues and enhances reds and yellows on Jupiter and Saturn, increases contrast on Mars and the moon (in scopes 6" plus).

#23A Light Red (25% transmission): Enhances detail in polar regions of Jupiter, Saturn and Mars (in scopes 6" plus). Also increases contrast between Mercury and evening sky.

#58 Green (24% transmission): On telescopes 8" plus, this green increases belt structure on Jupiter and Saturn's surface and in Saturn's rings. Also enhances Mars' ice caps.

#80A Blue (30% transmission): A popular filter for enhancing spiral features in Jupiter's cloud belt (including the Red Spot), and adding contrast to Saturn and the moon.



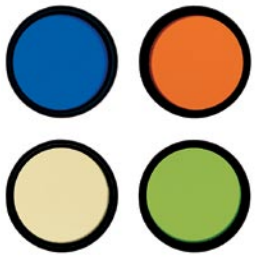
Series 4000 Color Filter Set Number Two:

#11 Yellow-Green (78% transmission): Contrasts with red and blue features on Jupiter, and Saturn. Darkens the maria on Mars. Clarifies the Cassini division in Saturn's rings.

#25A Red (14% transmission): Dark red blocks blue and blue-green for sharp contrast in Jupiter's cloud belts. Helps define polar caps and maria on Mars. For telescopes 8" plus.

#47 Violet (3% transmission): Strongly rejects red, yellow and green. For study of Martian polar caps, the atmosphere of Venus, Saturn's rings. For telescopes 8" plus.

#82A Light Blue (73% transmission): Useful on the moon, Mars, Jupiter, and Saturn. Light blue adds contrast without robbing image brightness. A valuable filter for stacking.



Series 4000 Color Filter Set Number Three:

#8 Light Yellow (83% transmission): Popular for enhancing lunar features in telescopes 8" and under. Also for observing red and orange features of Jupiter, Uranus and Neptune.

#21 Orange (46% transmission): Blocks blue-green wave lengths to enhance detail in polar regions of Jupiter and Saturn. Also sharpens edge detail of maria on Mars.

#38A Dark Blue (17% transmission): Popular for study of Jupiter. Strongly rejects orange and red for greater cloud belt and Red Spot contrast. Also for Mars, Saturn and Venus.

#56 Light Green (53% transmission): Excellent for Mars' polar ice caps and yellow-tinted dust storms. Also for increasing red and blue features on Jupiter and lunar contrast.

Series 4000 Lunar Filter and Variable Polarizing Filter *(available separately):*

ND 96 Moon Filter (0.9 density; 13% transmission): Transmits light uniformly across the entire visual spectrum. Reduces glare and increases clarity of the moon in scopes 4" plus. Also useful for splitting double stars when one star is significantly brighter than the other.

Variable Polarizing Filter (1.25"): The adjustable way to reduce glare when observing the moon. Includes two polarizer filters mounted in a special cell that accepts 1.25" eyepieces. Allows you to vary light transmission from 5% to 25% so you can adjust the filter's brightness to match the brightness of the moon during different phases. Variable brightness is also useful when you change magnification or observe through telescopes of various apertures.

#3200 Lunar Planetary Filter Set

An economical alternative to Series 4000 filters, this set includes widely-used red, yellow, blue and neutral density-filters that adapt to most viewing conditions. Use them to increase planetary contrast and resolution and reduce glare of the full moon. They fit into the barrels of any Meade 1.25" eyepiece.

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MEADE
FLIP-MIRROR SYSTEM

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FOCAL REDUCER/FIELD

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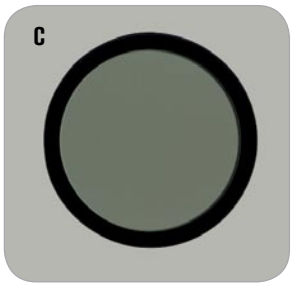
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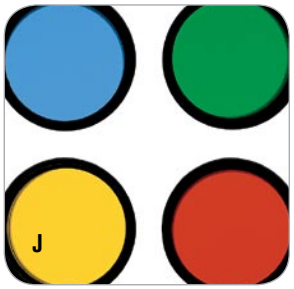
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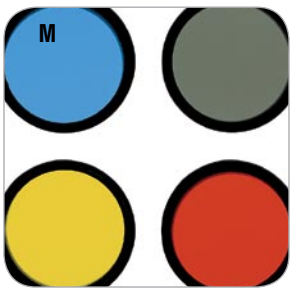
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ACCESSORY KITS. Save money on the essentials.

Every Meade telescope comes ready to observe. But if you'd like to add magnification capabilities, try your hand at astrophotography, or perhaps just take the hobby more seriously from the get-go, our kits make accessorizing easier and save you up to 50% off items if purchased separately. Add some bells and whistles to your scope today. It's easy.

ETX Celestial Observer's Kit

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- Series 4000 9.7mm Super Plössl eyepiece
- Series 4000 15mm Super Plössl eyepiece
- 2x Short-Focus Barlow Lens

ETX Amateur Astronomer's Kit

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- Series 4000 9.7mm Super Plössl eyepiece
- Series 4000 15mm Super Plössl eyepiece
- Series 4000 32mm Super Plössl eyepiece
- 2x Short-Focus Barlow Lens
- 3200 Lunar Planetary 4-color filter set
- AC Adapter

ETX Deluxe Observer's Kit

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- Series 4000 9.7mm Super Plössl eyepiece
- Series 4000 15mm QX Wide Angle eyepiece
- Series 4000 32mm Super Plössl eyepiece
- 2x Short-Focus Barlow Lens
- Series 4000 Filter Set #1
- Series 4000 Moon Filter ND96
- 45 degree Erecting Prism
- Vibration Isolation Pads
- AC Adapter

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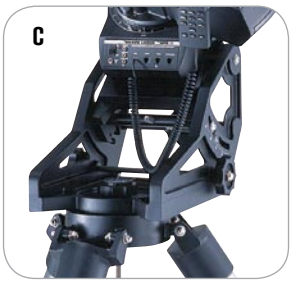
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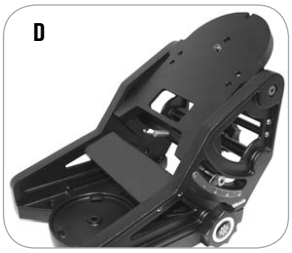
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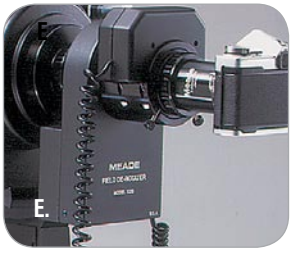

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IMAGING ACCESSORIES. The perfect shot is in the details.

Shooting art-gallery images of the heavens may start with the right telescope, mount, and camera, but it ends with accessories like these. Whether you are a seasoned star-shooter, a serious researcher, or just a beginner, Meade has everything you need to capture the night sky for art or science.

A **Deep Sky Imager Fan.** It's cool. Enhances the air-cooled properties of any DSI camera. Keeps your camera up to 9° Fahrenheit cooler than without a fan. Powered by 8 user-supplied AA batteries or with #541 AC power supply (p. 141).

B **Deep Sky Imager Pro II RGB Filter Set.** The colorizer. Color filter set for monochrome DSI Pro II. Includes Red, Green, and Blue interference filters plus an IR blocking filter. Designed specifically for DSI imagers, these filters provide ideal wave length transmissions for true color images with minimum exposure times. 1.25" Parfocal.

C **Equatorial Wedges.** A long exposure necessity.

D An Equatorial Wedge is for exposures longer than about 5 minutes (under 5 minutes, a wedge is not necessary). A wedge permits precise polar alignment of your telescope in equatorial mode (compared to Alt/Az mode). This eliminates field rotation in long-exposure photographs by allowing you to align the telescope's axis of rotation with the Earth's axis of rotation. Die cast aluminum wedges include fine adjusters, no-tool knobs, and a compass for faster aligning on the pole. Choose the appropriate 8" EQ Wedge or our extra heavy duty Ultra-Wedge.

+ 8" LX90ACF Equatorial Wedge with adapter plate (not shown)
+ 8" LX200-ACF Equatorial Wedge
+ Ultra-Wedge (Ultra-stable wedge for all LX models 8"-14")

E **Field De-Rotator.** The equatorial wedge alternative. If you want to do long exposures (over 5 minutes) in Alt/Az mode without a wedge, you can correct for field rotation (which results from the scope not rotating on the same axis that the earth does) with Meade's Field De-Rotator. Attaches to the rear cell of your scope to precisely counter the effects of Alt/Az-induced field rotation.

F **Vibration Isolation Pads.** Stable platform. Sharper image. Highly desirable for sensitive imaging applications, these pads reduce typical vibration damping times to less than one second. Place one pad under each tripod leg. Includes set of three.

G **f6.3 Focal Reducer/Field Flattener.** Faster, flatter, better. A photographer's dream. Improves edge-of-field correction and reduces exposure times by close to 50%. Effectively reduces focal ratio by a factor of 0.63. Threads into rear cell of any LX90, LX200 or LX400 series scope (or competing Schmidt-Cassegrains). 1.25"

H **f/3.3 CCD Focal Reducer/Field Flattener and T-Adapter.** Ultra-fast. For ultra-fast CCD imaging with increased edge-of-field resolution and color correction. Reduces exposure times by up to 80%. Threads into rear cell of any LX90, LX200 or LX400 series scope (or competing Schmidt-Cassegrains). Not for visual use or film photography. 1.25"

I **T-Mounts.** Canon and Nikon. T-Ring Mounts allow you to attach your SLR or DSLR camera to your telescope. Available for Canon, Canon EOS, and Nikon cameras.

J **Basic Camera Adapter.** Your telescope. Your camera. For photographing the moon, planets and stars through your telescope using 1.25" eyepieces. Accepts an eyepiece that will project an enlarged image onto the camera film plane or CCD chip. Each camera requires a separate T-mount.

K **Variable Projection Camera Adapter.** With or without an eyepiece. This camera adapter permits a continuous range of projection magnifications. Two separable units allow prime focus or eyepiece-projection photography. Requires a camera-specific T-Mount. 1.25"

L **ETX PE T-Adapter.** #641 Shoot through your ETX PE. Prime focus camera adapter converts your ETX PE into a telephoto lens. Threads onto the rear cell of the ETX PE 90 and 125. Requires camera-specific T-Mount.

M **ETX-80 T-Adapter.** #643T Shoot through your ETX 80. Prime focus camera adapter converts your ETX into a telephoto lens. Threads onto the rear cell of the ETX 80. Requires camera-specific T-Mount.

N **ETX PE Back Cell Adapter.** Accepts Schmidt accessories. The Back Cell Adapter allows your ETX to accept Schmidt-Cassegrain accessories like focal reducers, flip-mirrors, and off-axis guiders. Turns your ETX into a world-class astrophotography instrument.

O **1.25" Flip-Mirror System.** #644 A must-have. A necessity for any serious astrophotographer, the flip-mirror system allows you to use both an eyepiece and a camera and "flip" between them to center, compose, and focus your image before shooting. UHTC coated. Includes adjustment screws and locks for precise image centering. Mirror clear aperture: 22mm.

P **1.25" and 2" Flip-Mirror System.** #647 For larger eyepieces and chips. Same as 1.25" Flip-Mirror but accepts 1.25" or 2" eyepieces. Larger 40mm mirror clear aperture prevents vignetting with large-chip CCD imagers.

Q **Piggyback brackets.** Take your camera for a ride. Piggyback photography is a popular and easy way to get started in astrophotography. This bracket lets you attach your camera (with lens) atop any Meade LX90 or LX200. Polar align your scope in equatorial mode, use your scope to guide, and take beautiful wide-field photos of the Milky Way and other regions. Please specify 8, 10, 12, 14 or 16 inch.

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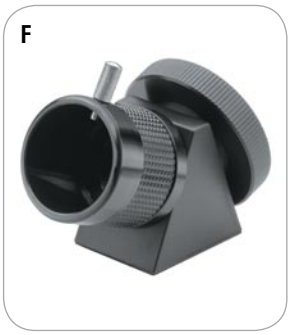

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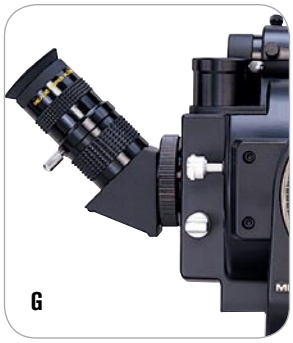

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MISCELLANEOUS ESSENTIALS. All the right tools for the job.

Power your telescope with your car battery, keep dew off your lens, link your telescope to your PC and more with these useful accessories. Break or lose an item not shown here? It's probably available as a replacement part. Visit meade.com or call 800-626-3233.

Adapters save on batteries.

A **AC Adapter for ETX 80 and DS 2000.** #546 AC Adapter plugs into any standard outlet and connects to the scope's battery pack connector via a 25-foot cord.

B **Universal AC Adapter. For ETX90, 125, or any LX series scope up to 14".** Plugs into any standard outlet and includes 25-foot cord that connects to the control panel of any ETX PE, LXD75, LX90, LX200, or LX400 scope up to 16". Output: 5 amps 12 volts.

C **DC Power Cord w/Cigarette Lighter Adapter.** #607 DC Power Cord lets you power any ETX PE, LX or LX400 series scope at home or away from home with your car battery. Includes 25' cord.

D **16" Electronic DC Adapter.** Adapter #1812a powers your 16" LX200-ACF with 18 volts of DC power from any standard outlet. Includes 25' cord that plugs into your telescope's control panel.

Erecting prisms reorient images for daytime land viewing.

Many astronomical scopes have mirrors that show images right side up but flopped left-to-right. Erecting prisms reorient images for nature watching and other daytime pursuits.

E **ETX 80 45° Erecting Prism.** Prism #933 reorients ETX 80 images for daytime use and provides a comfortable viewing position.

F **ETX PE 45° Erecting Prism.** Prism #932 reorients ETX PE images for daytime use and provides a comfortable viewing position.

G **Universal 45° Erecting Prism.** Prism #928 reorients the image of any Refractor, Schmidt-Cassegrain or Advanced Coma-Free telescope for daytime use. Provides a comfortable viewing position. Not for Dobsonian or Newtonian reflectors.

AutoStar Connecting Cables. Link your scope to your PC.

H **RS-232 Connector Cable Set #506 w/software. For ETX 80 and DS series.** Allows you to connect any AutoStar #494 telescope to a PC. Operate your computer from your PC or Macintosh, download updates, create custom tours, and more.

I **RS-232 Connector Cable Set #505. For all AutoStar #497 Telescopes.** Allows you to connect any ETX PE, LXD75, or LX90 Telescope to a PC. Operate your computer from your PC, download updates, create custom tours, and more.

J **USB to RS-232 Bridge Cable.** Allows you to use #505 or #506 cables above to connect to a USB port. Driver software included. Windows 98, ME, 2000, and XP compatible.

Short Focus Barlows. An affordable, comfortable boost of power.

K **Short Focus 2x Barlow.** Our #126 2x Short Focus Barlow is our most commonly recommended Barlow lens. It doubles the power of any 1.25" eyepiece without adding a very long extension between the telescope and the eyepiece. Designed for the ETX, it works well with any telescope.

L **Short Focus 3x Barlow.** Our #128 3x Short Focus Barlow triples the magnification of any 1.25" eyepiece without adding a very long extension between the telescope and the eyepiece. Designed for the ETX, it works well with any telescope.

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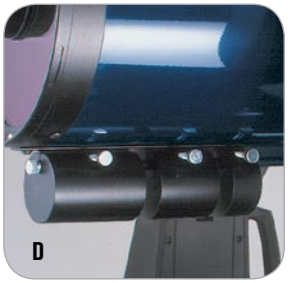

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MISCELLANEOUS ESSENTIALS. (continued)

Dew Shields and Shrouds. A moist climate must.

A ETX PE Dew shields. Helps keep dew from settling on the front lens. Please specify 90mm or 125mm.

B LX90 and LX200 Dew Shields. Helps keep dew from settling on the front lens. Please specify 8,10,12,14 or 16 inch.

C Light Shrouds for LightBridge Truss-Tube Dobsonians. Keep out ambient light and help prevent dew from collecting on the secondary mirror with these convenient light shrouds. Please specify 8", 10" or 12".

Balance Weight Systems. Keep balance with heavy accessories.

D Tube Balance Weight Systems for Schmidt-Cassegrains. Balance heavy accessories attached to the eyepiece end of the telescope with these handy tube weights that attach easily to the factory-prepared front underside of your telescope. Each set includes three differing weights. Please specify 8, 10, 12, 14 or 16 inch.

E LXD75 10 lb Counterweight. For LXD75 Equatorial mount. Keep in balance with heavy guide scopes, eyepieces, etc.

F Wireless AutoStar II. Cut the cord and still connect with the universe. The Wireless AutoStar II lets you control your LX200 or LX400 telescope with unprecedented freedom. Radio signals (rather than infrared) mean you don't need the scope in your line of sight. Separate communication codes prevent interference when multiple controllers are in use. Lose the cord. Keep the control.

G Zero Image-shift Microfocuser for LX90. Precise electronic focus. Give your LX90 the exact same electronic Microfocuser that comes standard with the LX200. It helps you obtain extremely precise (microscopic) focus during visual or photographic applications at the touch of a button. Unlike the LX200 (which operates through the AutoStar II controller), this focuser comes with a separate control handbox. 4 speeds. Accepts 1.25" and 2" eyepieces and accessories. Also works with non-Meade Schmidt-Cassegrains.

H ETX Aluminum Carrying Cases. Our heavy-duty cases make your ETX even more portable. Aluminum with foam inserts for your telescope, eyepieces and accessories. Specify 80mm, 90mm or 125mm.

I SC Thread to 2" Accessory Adapter. Lets any Schmidt accept 2" accessories. This adapter comes standard with the LX400, it allows any Schmidt or Advanced RC scope to accept 2" slip fit accessories, star diagonals, etc. Required for the Series 5000 2" Star Diagonal.

J Permanent Piers for 16" Scopes. For permanent installations, Meade makes both Altazimuth and Equatorial Piers of unsurpassed engineering stability. Provides readily-accessible eyepiece positions at all telescope pointing locations. Specify Alt/Az or EQ.

K LightBridge and Newtonian Laser Collimator. The mirrors of any reflecting telescope must remain properly lined up for the telescope to deliver a great image. Even scopes that come pre-aligned at the factory can benefit from alignment check-ups. Meade's Laser Collimator helps make collimation quick and easy.

MEADE SKY ASSURANCE. Reaches Beyond the Warranty.

Meade Sky Assurance helps you keep your eyes on the stars, not your wallet. It extends service on your delicate equipment beyond the manufacturer's warranty and coordinates all repairs for you using only Meade authorized service providers. Call Meade's Sky Assurance hotline to learn more at 1-800-291-3392.

Features

- 3 & 5-year plans available
- Begins date of purchase
- Products under $200 replaced
- 100% Parts and labor
- Covers all malfunctions and normal wear and tear
- No deductible
- Transferable and renewable
- No Lemon guarantee
- Toll free hotline

Overview

Repair Plans. For products over $200. If the product needs service, you receive an RGA number that allows you to return the product to the Meade Service Center. Return shipping charges will be covered. Inclusive of manufacturer's warranty.

Replacement Plans. For products under $200. If the product needs replacement, you receive an RGA number that allows you to return the product to the Meade Service Center. If the product is defective, you will receive a replacement product of like kind, and/or quality. Contract is considered fulfilled after one replacement. Inclusive of manufacturer's warranty.

Advance 3-Way Shipping Upgrade. This upgrade means you will be sent a container with packing instructions. All shipping costs are covered under this upgrade.

Astrophotography: Science or Art?

If you ask us, astrophotographers are artists in every sense of the word. On the list to the right, you'll frequently see an artist by the name of Jason Ware. Jason has used Meade telescopes to produce a never-ending stream of "Hubble-like" images from his backyard. If you'd like to see one of them on your wall, visit www.galaxyphoto.com to download or order prints. —Jason Ware / M27 - Dumbell Nebula / LX400

Astrophotographer Credits

Meade thanks the community of astrophotographers whose images fill this catalog. Your work inspires our work. Keep it up.

P.12 (M81) Spiral Galaxy. Jack Newton.
Meade 16" LX200 & Finger Lakes Dream Machine.
Exposure: LHaRGB; 10:10:10:12:15 minutes.

P.18 (M51) Whirlpool Galaxy. Mark Sibole.
Deep Sky Imager PRO II & Meade ETX-125 piggy backed on 10" LX200.
Exposure: LRGB; 136:40:40:40. Guiding: Deep Sky Imager PRO.

P.18 (NGC4565) Edge on Spiral Galaxy. Mark Sibole.
Deep Sky Imager PRO II & Meade ETX-125 piggy backed on 10" LX200
Exposure: LRGB; 64:30:30:30. Guiding: Deep Sky Imager PRO.

P.19 The Moon. Mark Sibole.
Meade Deep Sky Imager PRO II and 80mm Refractor piggy back on 10" LX200.
Imaged with Ha filter (350 frames).

P.42 (M31) The Andromeda Galaxy. Steve Hamilton.
Meade Deep Sky Imager PRO II & Meade 8" LXD75 Schmidt-Newtonian.
Exposure: 4 panel mosaic, 1 hour per panel (LRGB – 120 Frames x 30
Seconds each).

P.43 (M45) The Pleiades. Peter Kennet.
Meade 8" LXD75 Schmidt-Newtonian & Olympus OM-1. Exposure: 30 minutes.

P.43 (M81) Spiral Galaxy. Steve Hamilton.
Meade Deep Sky Imager PRO II & Meade 8" LXD75 Schmidt-Newtonian.
LRGB; L = 40 x 30 seconds, RGB = 30 x 30 seconds.

P.43 (M8) The Lagoon Nebula. Peter Kennet.
Meade 8" LXD75 Schmidt-Newtonian & Olympus OM-1. Exposure: 30 minutes.

P.44 The Moon. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Mosaic of many
short exposures.

P.46 (NGC 7293) The Helix Nebula. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera.
Narrowband image using Ha and OIII filters. Exposure: 100 minutes per filter.

P.48 Comet Hyakutake. Jason Ware.
Meade 6" 152 ED Telescope. Film: Fuji HG 400. Exposure: 30 minutes.

P.56–57 (M42) The Orion Nebula. Jason Ware.
Meade 12" LX400. CCD/Film blend: Yankee Robotics CCD, Kodak 400.
Exposure: 40:120 minutes.

P.58 South Polar Region of the Moon. Kevin Muenzler.
Meade 8" LX90.

P.59 Jupiter. Lee Zagar.
Meade 8" LX90 & Meade Deep Sky Imager.

P.59 (M57) The Ring Nebula. Alexandre Bouquin.
Meade 8" LX90 & Philips Vesta Pro Webcam. Exposure: 70 frames x 15 seconds.

P.59 Saturn. Ed Sampson.
Meade 8" LX90 @ f/20 & TouCam Pro 2. Exposure: 1100 stacked frames.

P.61 (M100) The Sombrero Galaxy. Steve Hamilton.
Meade 8" LX90 @ f/6.3 & Meade Deep Sky Imager PRO. Exposure: LRGB;
L=20x3 min, RGB=10x3 min. Processed with Drizzle.

P.68 (M13) Globular Cluster in Hercules. Mark De Regt.
Meade 12" LX400 & SBIG ST-8SE CCD Camera.

P.70 (NGC2237 & 2244) The Core of the Rosette Nebula. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Exposure: SII,HA,
OIII filters, 2:2:2 Hours. Guiding: Meade Deep Sky Imager.

P.76 (M20) The Trifid Nebula. Tony Cordaro.
Meade LX200-ACF & Canon 350d. Exposure: 10 x 3 minute exposures, ISO800.

P.92 (NGC6992) The Veil Nebula. By Chuck Domaracki.
Meade Deep Sky Imager PRO II & 80mm Refractor piggy back on Meade LX200GPS.
Exposure: 30minutes; Ha and OIII.

P.93 (M1) The Crab Nebula. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Exposure: HaRBG;
120:40:40:40 minutes. Guiding: Meade Deep Sky Imager.

P.94 The Sun in Hydrogen-alpha light. Jack Newton.
Meade 7" APO & Coronado 90mm Ha Filter & Meade Pictor 1616XT CCD Camera.

P.96 (NGC2237 & 2244) The Rosette Nebula. Jack Newton.
Meade 7" APO & Finger Lakes Dream Machine CCD camera. LHaRGB;
10:10:5:12:15 minutes.

P.96 The Sun in Hydrogen-alpha light. Jack Newton.
Coronado 90mm MaxScope 90 & Canon 20Da.

P.96 (M45) The Pleiades. Jack Newton.
60mm Borg f/4 & Canon 20Da.

P.98 (M31) The Andromeda Galaxy. Jason Ware.
Meade 12" Schmidt Camera Telescope. Film: Kodak Tech Pan, Fuji 100.
Exposure: 40:30 minutes.

P.99 The Moon. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Exposure: Mosaic of
Two Short Exposures.

P.99 (M8) The Lagoon Nebula. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Exposure: LRBG,
40:40:40:40 minutes. Guiding: Meade Deep Sky Imager.

P.104 Third Contact. Mike Reynolds.
Meade 80mm ED APO & Canon 10D.

P.105 (M100) Spiral Galaxy. Mark Sibole.
Meade Deep Sky Imager PRO II & Meade 80mm ED APO. Piggybacked on the
10" LX200. LRGB, 54:32:32:32 Minutes. Guiding: Meade Deep Sky Imager PRO.

P.105 (NGC6992) The Veil Nebula. Mark Sibole.
Meade Deep Sky Imager PRO II & Meade 80 mm APO with Meade f/6.3 reducer
piggyback on 10" LX200. Exposure: HaRGB; 40:32:32:32 minutes.

P.111 Saturn. Edward Roach.
Meade 8" LX90 & ToUcam.

P.111 The Moon. Mark Sibole.
Meade Deep Sky Imager PRO & ETX-90 piggy back on 10" LX200.
Exposure: 800 x .0025seconds.

P.111 Mars. Chuck Reese.
Meade Deep Sky Imager II & Meade 10"LX200GPS @ f/20. Exposure: 108 x .0442 seconds.

P.113 (M16) The Eagle Nebula. Jason Ware.
Meade 12" LX400 & Yankee Robotics Trifid II CCD camera. Exposure: HA, OIII, SII,
100:60:60 minutes. Guiding: Meade Deep Sky Imager.

P.115 M81 & M82. Jack Newton.
Meade 16" LX200 & Finger Lakes Dream Machine. Exposure: LHaRGB; 10:10:10:12:15 mintues.

P.116 Saturn. Ken Gamble.
Meade Lunar Planetary Imager (LPI™) & Meade 8" LX90 @ f/20.

P.116 (NGC 1977) The Running Man Nebula. Jean-Paul Longchamp.
Meade Deep Sky Imager II & Meade 10" LX200 @ f/4.Exposure: 15 x 4 min.
Guiding: Meade Deep Sky Imager.

P.116 (NGC2264) The Christmas Tree Cluster and Cone Nebula. Mark Sibole.
Meade Deep Sky Imager PRO II & 80mm APO. Exposure: HaRGB; 60:32:32:32 minutes.

P.117 (NGC 2237) The Rosette Nebula. Matt Taylor.
Meade Deep Sky Imager Pro II & 80mm Refractor on Meade LXD650
equatorial mount. Exposure: 15 panel mosaic, 1 hour per panel
(6 frames x 10 min. each). Guiding: SBIG ST-2000.

P.118 (M109) Spiral Galaxy. Chuck Reese.
Meade Deep Sky Imager & 10" LX200GPS. Exposure: : LRGB; 60:32:32:32 minutes.
Guiding: Deep Sky Imager PRO.

P.118 (M101) Spiral Galaxy. Neil Fleming.
Meade Deep Sky Imager PRO & 127mm Refractor.
Exposure: LRGB; L 49x2min, R 40x1min, G 39x1min, B 37x85secs.

P.118 (M1) The Crab Nebula. Matt Taylor.
Meade Deep Sky Imager, Deep Sky Imager PRO & Meade 12" LX200GPS @ f/3.52.
Exposures: DSI = 10 x 8 Minutes. DSI Pro = 5 x 8 Minutes.

P.118 (NGC 7293) The Helix Nebula. Steve Hamilton.
Meade Deep Sky Imager PRO & 8" LX90 @ f/3.3. Exposure: LRGB; 112:48:48:24 minutes.

P.119 The Moon. Ed Sampson.
Meade Lunar Planetary Imager (LPI) & 8" LX90 @ f/3.3. Mosaic of 5 images.

P.119 Saturn. John Bartucci.
Meade Lunar Planetary Imager (LPI) & Meade 8" LX200GPS Schmidt-Cassegrain.
Exposure: 250 x 0.25 seconds.

P.119 Jupiter. Steve Hamilton.
Meade Lunar Planetary Imager (LPI) & Meade 8" LX90 @ f/10.
Exposure: 88 images stacked.

P.120 (M16) The Eagle Nebula. Mark Sibole.
Meade Deep Sky Imager PRO & Meade 80mm ED APO piggybacked on 10" LX200.
Exposure: HaRGB; 72:8:8:8 minutes.

P.120 (M42) The Great Orion Nebula. Peter O'Brien.
Meade DSI PRO & Meade 10" LX200. Mosaic of 5 images.

P.120 (M13) Hercules Cluster. Peter O'Brien.
Meade Deep Sky Imager & Meade 10" LX200 @ f/3.3. Exposure: 65 frames x 15 seconds.

P.122 (NGC 2024 + NGC1333) The Flame and Horsehead Nebula. Mark Sibole.
Meade Deep Sky Imager PRO II & 80mm Refractor piggyback on LX200.
Exposure: 4 panel mosaic; Flame HaRGB; 60:12:12:12 minutes, Horsehead
HaRGB 60:20:20:20 minutes.

P.122 (NGC 1977) The Running Man Nebula. Mark Sibole.
Meade Deep Sky Imager PRO II & ETX-125 @ f/7.5. Exposure: LRGB; 60:12:12:12 minutes.

P.134 Jupiter. Rodney Berryman.
Meade Lunar Planetary Imager (LPI) & 7" LX200. Exposure: 2 seconds.

P.134 Mars. Noel Carboni.
Meade Lunar Planetary Imager (LPI) & 10"
LX200GPS @ f/20. Exposure: 41 frames stacked.

P.134 Saturn. Thierry Legault.
Meade 12" LX200 & Philips webcam. Exposure: 900 images stacked.

P.144 (M27) The Dumbbell Nebula. Jason Ware.
Meade 12" LX400 and Yankee Robotics Trifid II CCD camera. Exposure: HA, OIII,
100:100 minutes. Guiding: Meade Deep Sky Imager.

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